AUGUST 1981 NUMBER 444 -- Part II

# Solar-Geophysical Data comprehensive reports

Data for February 1981 & Miscellanea

Explanation of Data Reports Issued as Number 438 (Supplement) February 1981

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# Solar - Geophysical Data

## Part II (Comprehensive Reports)

NO. 444 AUGUST 1981

DATA FOR
FEBRUARY 1981

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# SOLAR-GEOPHYSICAL DATA

No. 444

*Issued in two parts*

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

## CONTENTS

### Part I (Prompt Reports)

| | PAGE |
|---|---|
| Index for 1980-1981 | 2 |
| Data for July 1981 | 3-48 |
| Data for June 1981 | 49-150 |
| Late Data | 151-155 |
| Cosmic Rays - Alert/Deep River May 1981 | |
| Hourly Equatorial Dst Values Apr 1981 | |

### Part II (Comprehensive Reports)

| | |
|---|---|
| Index for 1980-1981 | 2 |
| Data for February 1981 | 3-49 |
| Note on Delay of Solar Flare Data | 4 |
| Miscellaneous Data | 51-59 |
| Active Regions Oct 22, 1980 - Feb 9, 1981 | |
| Synoptic Solar Maps Oct 22, 1980 - Feb 9, 1981 | |

DETAILED COVERAGE FOR 1980-81 PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

| | | 1980 Jul | Aug | Sep | Oct | Nov | Dec | 1981 Jan | Feb | Mar | Apr | May | Jun | Jul |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. | SOLAR AND INTERPLANETARY PHENOMENA | | | | | | | | | | | | | |
| A.1 | Sunspot Drawings | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.2a | Zurich Provisional Relative Sunspot Numbers Rz | 432A 11 | 433A 11 | 434A 11 | 435A 11 | 436A 11 | 437A 11 | --- | --- | --- | --- | --- | --- | --- |
| A.2aa | International Provisional Relative Sunspot Numbers $R_I$ | | | | | | | 438A 11 | 439A 9 | 440A 11 | 441A 13 | 442A 11 | 443A 9 | 444A 11 |
| A.2b | Zurich Final Sunspot Numbers Rz | 440A 10 | 440A 10 | 440A 10 | 440A 10 | 440A 10 | 440A 10 | --- | --- | --- | --- | --- | --- | --- |
| A.2c | American Relative Sunspot Numbers Ra | 432A 11 | 433A 11 | 434A 11 | 435A 11 | 436A 11 | 437A 11 | 438A 11 | 439A 9 | 440A 11 | 441A 13 | 442A 11 | 443A 9 | 444A 11 |
| A.3a | Mt. Wilson Magnetograms | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.3h | Mt. Wilson Magnetic Characteristics of Sunspots | 433A110 | 434A108 | 435A110 | 436A112 | 437A120 | 438A106 | 439A108 | 440A108 | 441A120 | 442A117 | 443A106 | 444A112 | |
| A.3c | Kitt Peak Magnetograms | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.3d | Mean Solar Magnetic Field (Stanford) | 432A 42 | 433A 40 | 434A 38 | 435A 42 | 436A 42 | 437A 48 | 438A 36 | 439A 38 | 440A 46 | 441A 50 | 442A 44 | 443A 38 | 444A 46 |
| A.3e | Stanford Magnetograms | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 439A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.4 | H-alpha Filtergrams | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.5 | Calcium Plage Drawings - Mt. Wilson | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.5a | Calcium Plage (Mt. Wilson) and Sunspot Regions | 433A110 | 434A108 | 435A110 | 436A112 | 437A120 | 438A106 | 439A108 | 440A108 | 441A120 | 442A112 | 443A106 | 444A112 | |
| A.5b | Mt. Wilson Daily Calcium Plage Indices | 433A127 | 434A125 | 435A127 | 436A127 | 437A134 | 438A121 | 439A123 | 440A121 | 441A135 | 442A127 | 443A119 | 444A122 | |
| A.6 | H-alpha Synoptic Charts | 433A 44 | | 435A 46 | 436A 46 | 437A 52 | 438A 40 | 439A 42 | 440A 48 | 441A 54 | 442A 48 | 443A 42 | 444A 50 | |
| A.6b | Synoptic Chart and Active Regions (Paris) | 439B120 | 439B121 | 440B 48 | 442B 84 | 444B 52 | 444B 54 | 444B 56 | 444B 58 | | | | | |
| A.6c | Stanford Solar Magnetic Field Synoptic Charts | 433A 45 | 434A 43 | 435A 47 | 436A 47 | 437A 54 | 438A 41 | 439A 43 | 440A 49 | 441A 55 | 442A 49 | 443A 43 | 444A 51 | |
| A.6d | Kitt Peak Solar Magnetic Field Synoptic Charts | 433A 46 | 434A 44 | 435A 48 | 436A 48 | 437A 56 | 438A 42 | 439A 44 | 440A 50 | 441A 56 | 442A 50 | | | |
| A.6e | Mass Ejections from the Sun | 436B 36 | 438B 29 | 439B 28 | 440B 38 | 441B 51 | 443B 62 | 443B 26 | 444B 48 | | | | | |
| A.7f | Helium D3 Chromosphere (Big Bear) | 432A 37 | 433A 35 | 436A177 | 436A177 | 436A 39 | 437A 44 | 438A 33 | 439A 39 | 441A170 | --- | --- | 443A 35 | 444A 43 |
| A.7g | Helium Synoptic Maps (KPNO) | 433A 47 | 434A 45 | 435A 49 | 436A 49 | 437A 58 | 438A 43 | 439A 45 | 440A 51 | 441A 57 | | | | |
| A.7h | Coronal Line Emission (Sac Peak) | 433A 48 | 434A 46 | 435A 50 | 436A 50 | 437A 60 | 438A 44 | 439A 46 | 440A 52 | 441A 58 | 442A 52 | 443A 44 | 444A 52 | |
| A.8aa | 2800 MHz - Daily Values of Solar Flux (ARO-Ottawa) | 432A 11 | 433A 11 | 433A 11 | 435A 11 | 436A 11 | 437A 11 | 438A 11 | 439A 9 | 440A 11 | 441A 13 | 442A 11 | 443A 9 | 444A 11 |
| A.8ac | 2800 MHz - Daily Values of Adj. Solar Flux (ARO-Ottawa) | 432A 11 | 433A 11 | 433A 11 | 435A 11 | 436A 11 | 437A 11 | 438A 11 | 439A 9 | 440A 11 | 441A 13 | 442A 11 | 443A 9 | 444A 11 |
| A.8g | Daily Values of Adjusted Solar Flux (AFGL) | 432A 11 | 433A 11 | 434A 11 | 435A 11 | 436A 11 | 437A 11 | 438A 11 | 439A 9 | 440A 11 | 441A 13 | 442A 11 | 443A 9 | 444A 11 |
| A.10a | 169 MHz - Interferometric Observations (Nancay) | 432A 24 | 433A 22 | 434A 25 | 436A176 | 438A160 | 438A161 | 439A154 | 439A 24 | 440A 29 | 442A160 | 442A 27 | 443A 23 | 444A 27 |
| A.10c | 21 cm East-West Solar Scans (Fleurs) | 432A 27 | 433A 25 | 434A 28 | 435A 30 | 436A 29 | 437A 34 | 438A 24 | 439A 27 | 440A 32 | 441A 33 | 442A 30 | 443A 26 | 444A 30 |
| A.10d | 43 cm East-West Solar Scans (Fleurs) | 432A 28 | 433A 26 | 434A 29 | 435A 31 | 436A 30 | 437A 35 | 438A 25 | 439A 28 | 440A 33 | 441A 34 | 442A 31 | 443A 27 | 444A 31 |
| A.10e | 10.7 cm East-West Solar Scans (Ottawa-ARO) | 432A 26 | 433A 24 | 434A 27 | 435A 29 | 436A 28 | 437A 33 | 438A 23 | 439A 26 | 440A 31 | 441A 32 | 442A 29 | 443A 25 | 444A 29 |
| A.10f | 3 cm East-West Solar Scans (Toyokawa) | 432A 25 | 433A 23 | 434A 26 | 435A 28 | 436A 27 | 437A 32 | 438A 22 | 439A 25 | 440A 30 | 441A 31 | 442A 28 | 443A 24 | 444A 28 |
| A.11g | Solar X-ray (SMS/GOES) (graphs) | 437m 30 | 438B 23 | 439B 23 | 440B 32 | 441B 46 | 442B 36 | 443B 20 | 444B 43 | | | | | |
| A.12hb | Cosmic Ray Protons (Pioneers 8 & 9) | 432A 38 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.12e | Energetic Solar Particles (IMP H & J) | | | | | | | | | | | | | |
| A.13a | Solar Wind (Pioneers 6 & 7) | 432A 39 | 433A 36 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.13ab | Solar Wind (Pioneers 8 & 9) | 432A 38 | 433A 37 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.13d | Solar Wind from IPS Measurements | 432A 34 | 433A 31 | 434A 34 | 435A 37 | 436A 37 | 437A 41 | 442A161 | 442A161 | 442A161 | 442A161 | 442A 39 | 443A 32 | |
| A.13e | Solar Plasma (IMP H & J) | 437B 29 | 443B 64 | 443B 65 | 443B 66 | 443B 67 | | | | | | | | |
| A.13f | Solar Wind (Pioneer 12 (Venus)) | 432A 39 | 433A 37 | 435A160 | 435A 43 | 436A 43 | 437A 45 | 438A 37 | 442A170 | 442A170 | 442A171 | 442A 45 | 443A 39 | 444A 47 |
| A.17 | Interplanetary Magnetic Field (Pioneer 9) | 432A 38 | 433A 37 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.17 | Interplanetary Magnetic Field (Pioneer 12) | 433A131 | --- | --- | 436A132 | 438A162 | 438A125 | 439A127 | 440A153 | --- | --- | --- | 444A126 | |
| A.17c | Inferred IP Magnetic Field | 432A 40 | 433A 38 | 436A 40 | 436A 40 | 436A 40 | 437A 46 | 438A 34 | 439A 36 | 440A 44 | 441A 48 | 442A 42 | 443A 36 | 444A 44 |
| A.18 | Interplanetary Electric Field (Pioneer 9) | 432A138 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| B. | IONOSPHERIC (AND RADIO WAVE PROPAGATION) PHENOMENA | | | | | | | | | | | | | |
| B.52 | Graphs of Transmission Frequency Range | 433A154 | 434A154 | 435A156 | 436A172 | 437A170 | 438A156 | 439A150 | 440A154 | 441A167 | 442A156 | 443A150 | 444A148 | |
| B.53 | Quality Figures Based on Frequency Ranges | 433A156 | 434A153 | 435A158 | 436A174 | 437A169 | 438A155 | 439A152 | 440A156 | 443A166 | 442A158 | 443A149 | 444A150 | |
| C. | FLARE-ASSOCIATED EVENTS | | | | | | | | | | | | | |
| C.1a | Optical Observations Flares | 432A 16 | 433A 16 | 434A 16 | 435A 16 | 436A 16 | 437A 16 | 438A 16 | 439A 14 | 440A 18 | 441A 18 | 442A 16 | 443A 15 | 444A 16 |
| C.1ha | Optical Observations Flares (Standardized Data) | 434B 15 | 436B 50 | 439B 30 | 439B 73 | 442B 44 | 443B 28 | | | | | | | |
| C.1d | Flare Patrol Observations | 432A 23 | 433A 21 | 434A 24 | 435A 27 | 436A 26 | 437A 31 | 438A 21 | 439A 23 | 440A 28 | 441A 30 | 442A 26 | 443A 22 | 444A 26 |
| C.1d | Flare Patrol Observations | 434B 49 | 436B 89 | 439B 71 | 439B116 | 442B 82 | 443B 59 | | | | | | | |
| C.1e | Flare Indices (by day) | 434B 48 | 436B 88 | 439B 70 | 439B115 | 442B 81 | 443B 58 | | | | | | | |
| C.1f | Flare Indices (by Region) | 436B 92 | 439B122 | 439B 72 | 442B 86 | 443B 68 | | | | | | | | |
| C.3 | Solar Radio Waves - Outstanding Occurrences | 437B 5 | 438B 5 | 439B 5 | 440B 5 | 441B 5 | 442B 5 | 443B 5 | 444B 5 | | | | | |
| | Solar Radio Waves - Fixed Frequencies - Selected | 432A 29 | 433A 27 | 434A 30 | 435A 32 | 436A 31 | 437A 36 | 438A 26 | 439A 29 | 440A 34 | 441A 35 | 442A 32 | 443A 28 | 444A 32 |
| C.4a | Solar Radio Spectral Obs. (Fort Davis) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 439A155 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.4d | Solar Radio Spectral Obs. (Culgoora) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 443A154 | 443A123 | 444A127 | |
| C.4e | Solar Radio Spectral Obs. (Weissenau) | 434A177 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | | |
| C.4f | Solar Radio Spectral Obs. (Sagamore Hill) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.4h | Solar Radio Spectral Obs. (Hwingeloo) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.4i | Solar Radio Spectral Obs. (Bleien) | 434A177 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.4j | Solar Radio Spectral Obs. (Manila) | | | | | | | | | | | | | |
| C.4k | Solar Radio Spectral Obs. (Learmonth) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.4l | Solar Radio Spectral Obs. (Palehua) | 433A132 | 434A129 | 435A131 | 436A133 | 437A139 | 438A126 | 439A128 | 440A126 | 441A136 | 442A134 | 443A123 | 444A127 | |
| C.5e | Solar X-ray (SMS/GOES) (graphs) | 437B 30 | 438B 23 | 439B 23 | 440B 32 | 441B 46 | 442B 36 | 443B 20 | 444B 43 | | | | | |
| C.6 | Sudden Ionospheric Disturbances | 433A128 | 434A126 | 435A128 | 436A128 | 437A135 | 438A122 | 439A124 | 440A122 | 442A172 | 442A128 | 443A120 | 444A123 | |
| D. | GEOMAGNETIC AND MAGNETOSPHERIC PHENOMENA | | | | | | | | | | | | | |
| D.1a | Geomagnetic Indices Kp, Kn, Ks, Km, Ap, as, Cp | 433A150 | 434A147 | 435A152 | 436A166 | 437A163 | 438A149 | 439A145 | 440A149 | 441A162 | 443A164 | 443A144 | 444A144 | |
| D.1ba | 27-day Chart of Kp Indices | 433A152 | 434A149 | 435A154 | 436A168 | 437A165 | 438A151 | 439A147 | 440A151 | 441A164 | 442A153 | 443A146 | 444A146 | |
| D.1c | 27-day Chart of Cp | 441A165 | 441A165 | 441A165 | 441A165 | 441A165 | 441A165 | | | | | | | |
| D.1ca | aa graph 1868 - present | | | | | | | | | | | | | |
| D.1d | Principal Magnetic Storms | 433A153 | 434A152 | 435A155 | 436A171 | 437A168 | 438A154 | 439A148 | 440A152 | 441A166 | 442A155 | 443A147 | 444A147 | |
| D.1e | Reduced Magnetograms | | | | | | | | | | | | | |
| D.1f | Sudden Commencement and Solar Flare Effects | 434A188 | 435A164 | 436A179 | 437A176 | 437A169 | 439A163 | 439A149 | 441A170 | 442A180 | 443A165 | 443A148 | | |
| D.1g | Equatorial Indices Dst | 434A187 | | 436A178 | 436A168 | 437A167 | 438A153 | 440A160 | 441A172 | 442A182 | 444A155 | | | |
| D.1h | Geomagnetic Substorm Log (Boulder) | 432A 43 | 433A 41 | 434A 40 | 435A 44 | 436A 44 | 437A 49 | 438A 38 | 439A 40 | 440A 43 | 441A 51 | 442A 46 | 443A 40 | 444A 48 |
| F. | COSMIC RAYS | | | | | | | | | | | | | |
| F.1a | Cosmic Ray Neutron Counts (Deep River) | 434A183 | 434A146 | 435A151 | 436A165 | 438A163 | 439A162 | 440A159 | 440A145 | 442A177 | 442A151 | 444A152 | | |
| F.1h | Cosmic Ray Neutron Counts (Climax) | 433A147 | | 436A165 | 438A163 | 438A163 | | 440A159 | 442A177 | 442A177 | 442A151 | 443A141 | | |
| F.1e | Cosmic Ray Neutron Counts (Alert) | 434A183 | 434A146 | 435A151 | 436A165 | 438A163 | 439A162 | 440A159 | 440A145 | 442A177 | 442A151 | 444A152 | | |
| F.1h | Cosmic Ray Neutron Counts (Thule) | 433A147 | 434A146 | 435A151 | 436A165 | 437A162 | 438A148 | 439A144 | 440A145 | 441A159 | 442A151 | 443A141 | 444A141 | |
| F.1i | Cosmic Ray Neutron Counts (Kiel) | 433A147 | 434A146 | 435A151 | 436A165 | 437A162 | 438A148 | 439A144 | 440A145 | 441A159 | 442A151 | 443A141 | 444A141 | |
| F.1j | Cosmic Ray Neutron Counts (Tokyo) | 433A147 | 434A146 | 435A151 | 436A165 | 437A162 | 438A148 | 439A144 | 440A145 | 441A159 | 442A151 | 443A141 | 444A141 | |
| F.1l | Cosmic Ray Neutron Counts (Huancayo) | 437A175 | 437A175 | 437A175 | 438A163 | 439A162 | 439A162 | 442A177 | 442A177 | 442A177 | 443A163 | 443A141 | | |
| H. | MISCELLANEOUS | | | | | | | | | | | | | |
| H.60 | IWDS Alert Decisions | 432A 5 | 433A 5 | 434A 5 | 435A 5 | 436A 5 | 437A 5 | 438A 5 | 439A 4 | 440A 5 | 441A 5 | 442A 5 | 443A 5 | 444A 5 |
| H.62 | Abbreviated Calendar Record | | | | | | | | | | | | | |

Notes:

"433A 48" listed under 1980 Jul means that the sunspot drawings for Jul 1980 were contained in *Solar-Geophysical Data* Number 433 - Part I, beginning on page 48.

A = Part I, B = Part II.

----- = no data available.
blank = data not yet received.

SGD 444 Part II (Comprehensive)

FEBRUARY 1981 DATA

Contents

Page

Active Regions (Data not available at time of publication.)

Synoptic Solar Maps (Data not available at time of publication.)

Solar Flares (Data not available at time of publication.) SEE NOTE
H-alpha Solar Flares (Standardized Data) ON PAGE 4.
Daily Flare Indices
Intervals of No Flare Patrol Observation

Solar Radio Emission 42
Outstanding Occurrences (Fixed Frequencies)

Energetic Solar Particles and Plasma (Data not available at time of publication.)

Solar X-ray Radiation
SMS-GOES 43-47

Mass Ejections from the Sun 48-49

NOTE ON DELAY OF GROUPED SOLAR FLARE DATA:

Beginning with the July 1980 issue of *Solar-Geophysical Data*, we planned to publish the final listing of solar flares 13 months, rather than 6 months, from the date of observation. Although this schedule has not been met since the July 1980 issue was published, we and our colleagues at the Meudon Observatory plan to return to the 13-month delay as soon as possible. This new schedule will cause the Daily Flare Index and the Regional Flare Index to appear 13 and 14 months from the date of observation. At the same time we are suspending indefinitely publication of the Abbreviated Calendar Record. We deeply regret this situation, but the volume of data recorded during sunspot maximum and computer conversion problems at the Meudon Observatory and at NGSDC have forced these greater delays on us.

For researchers who need the comprehensive solar flare data more promptly, NGSDC plans to generate in the next few weeks "preliminary" listings from January 1980 through the "current" month that lies 13 months from the month of observation. These complete tabulations will lack the final Meudon corrections, and will only be published after they have been made. Nevertheless, printouts for this period will be available on request, if they be recognized as "preliminary" when used in research projects. A fee may be charged for reproducing these data. Please contact the editor, Helen E. Coffey, at (303) 497-6223 or telex 45897 SOLTERWARN BDR.

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 8.0 | | |
| | 245 | LEAR | 43 | NS | 0008.1 | 0346.8 | 644.9 | 290 | | | |
| | 410 | LEAR | 43 | NS | 0159.8 | 0347.8 | 533.2 | 60 | | | |
| | 100 | HIRA | 43 | NS | 0548.2 | 0722.3 | 140.0D | 60.0 | 10.0 | | WL |
| | 200 | GORK | 44 | NS | 0554.0E | | 366.0D | | 5.0 | | |
| | 100 | GORK | 43 | NS | 0613.3 | | 187.0D | | 10.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 0801.3 | 480.0D | 60.0 | 2.0 | | V0 |
| | 260 | ONDR | 44 | NS | 0936.0E | | 274.0D | 54.0 | 5.0 | | |
| | 245 | SGMR | 43 | NS | 1202.0 | 2104.8 | 590.0D | 139 | | | |
| | 100 | HIRA | 44 | NS | 2138.0E | 2204 | 76.0D | 450.0 | 60.0 | | SL |
| | 200 | HIRA | 44 | NS | 2138.0E | 2340 | 620.0D | 90.0 | 10.0 | | ML |
| | 245 | LEAR | 43 | NS | 2223.0 | 0910.6 | 749.0D | 139 | | | |
| | 410 | LEAR | 43 | NS | 2223.0E | 0609.3 | 659.5 | 55 | | | |
| | 245 | PALE | 43 | NS | 2252.3 | 0227.5 | 322.7 | 119 | | | |
| | 606 | LEAR | 4 | S/F | 0003.8 | 0005.6 | 3.5 | 13 | | | |
| | 9400 | TYKW | 20 | GRF | 0202.0 | 0207 | 40.0U | 4.0 | 2.0 | | RAIN |
| | 3750 | TYKW | 20 | GRF | 0202.0 | 0207 | 40.0 | 2.5 | 1.0 | | |
| | 3750 | TYKW | 21 | GRF | 0320.0 | 0414 | 140.0 | 5.0 | 2.5 | | |
| | 9400 | TYKW | 21 | GRF | 0325.0U | 0414 | 115.0U | 4.0 | 2.0 | | RAIN |
| | 2000 | TYKW | 21 | GRF | 0325.0 | 0414 | 135.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 45 | C | 0334.5 | 0334.6 | 1.5 | 3.0 | .5 | | |
| | 3750 | TYKW | 45 | C | 0334.5 | 0335.3 | 7.0 | 13.0 | 2.0 | | |
| | 1000 | TYKW | 5 | S | 0335.0 | 0335.4 | 1.0 | 4.0 | 1.5 | | |
| | 606 | LEAR | 8 | S | 0342.5 | 0342.8 | 1.3 | 28 | | | |
| | 3750 | TYKW | 5 | S | 0346.4 | 0346.7 | 1.3 | 4.5 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0359.0 | 0400 | 7.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 45 | C | 0359.0 | 0359.8 | 2.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 5 | S | 0408.3 | 0408.5 | .5 | 5.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0447.0 | 0449 | 8.0 | 2.5 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0448.0 | 0449 | 6.0 | 1.0 | .5 | | |
| | 2000 | TYKW | 5 | S | 0511.7 | 0512.1 | 1.0 | 2.0 | .5 | | |
| | 3750 | TYKW | 5 | S | 0521.0 | 0522 | 16.0 | 3.5 | 2.0 | | |
| | 2000 | TYKW | 45 | C | 0521.2 | 0521.6 | 3.0 | 8.0 | 1.0 | | |
| | 3750 | TYKW | 45 | C | 0554.0 | 0557.4 | 4.0 | 26.0 | 5.0 | | |
| | 9400 | TYKW | 20 | GRF | 0556.0 | 0608.8 | 60.0 | 12.0 | 5.0 | | |
| | 2000 | TYKW | 45 | C | 0556.0 | 0557.2 | 4.0 | 7.0 | 3.0 | | |
| | 3100 | CRIM | 3 | S | 0556.5 | 0557.5 | 1.5 | 29.0 | 9.0 | | |
| | 4995 | LEAR | 4 | S/F | 0556.8 | 0557.5 | 4.2 | 11 | | | |
| | 2695 | LEAR | 4 | S/F | 0556.8 | 0557.3 | 4.2 | 42 | | | |
| | 1000 | TYKW | 45 | C | 0558.0 | 0559.4 | 2.0 | 32.0 | 4.0 | | |
| | 3750 | TYKW | 30 | PBI | 0558.0 | | 55.0 | 9.0 | 4.0 | | |
| | 200 | HIRA | 46 | C | 0558.2 | 0559.3 | 2.0 | 210.0 | 58.0 | | WL |
| | 245 | LEAR | 8 | S | 0559.1 | 0559.1 | 1.9 | 330 | | | |
| | 2000 | TYKW | 30 | PBI | 0600.0 | | 50.0 | 3.0 | 1.5 | | |
| | 650 | GORK | 23 | GRF | 0600.0 | 0638.0 | 180.0 | 17.0 | 6.0 | | |
| | 606 | LEAR | 47 | GB | 0606.1 | 0609.0 | 8.9 | 57 | | | |
| | 950 | GORK | 4 | S/F | 0607.2 | 0608.9 | 5.8 | 45.0 | | | |
| | 1000 | TYKW | 45 | C | 0607.5 | 0609.1 | 5.5 | 42.0 | 5.0 | | |
| | 3750 | TYKW | 45 | C | 0608.0 | 0609.7 | 5.0 | 7.0 | 3.0 | | |
| | 2000 | TYKW | 45 | C | 0608.0U | 0608.8 | 5.0U | 17.0 | 8.0 | | |
| | 410 | LEAR | 4 | S/F | 0608.6 | 0608.8 | 7.0 | 85 | | | |
| | 1415 | LEAR | 4 | S/F | 0608.0 | 0609.8 | 7.0 | 11 | | | |
| | 2695 | LEAR | 4 | S/F | 0608.1 | 0608.8 | 6.9 | 08 | | | |
| | 650 | GORK | 46 | C | 0608.1 | 0608.8 | 3.4 | 33.0 | | | |
| | 650 | GORK | | | 0608.1 | 0610.0 | | 23.0 | | | |
| | 4995 | LEAR | 4 | S/F | 0608.3 | 0609.0 | 6.7 | 06 | | | |
| | 606 | LEAR | 8 | S | 0619.1 | 0619.1 | .7 | 26 | | | |
| | 410 | LEAR | 8 | S | 0619.1 | 0619.3 | .7 | 64 | | | |
| | 3100 | CRIM | 20 | GRF | 0705.5 | 0707.0 | 115.0 | 7.0 | 2.0 | | |
| | 650 | GORK | 20 | GRF | 0922.5 | 0942.0 | 31.5 | 3.0 | 1.5 | | |
| | 650 | GORK | 20 | GRF | 1048.0 | 1136.0 | 72.0E | 6.0 | 3.0 | | |
| | 204 | IZMI | 4 | S/F | 1132.5 | 1132.7 | .9 | 250.0 | 80.0 | | |
| | 2800 | OTTA | 2 | S/F | 1617.0 | 1617.7 | 2.5 | 8.6 | 3.6 | | |
| | 9400 | HUAN | | S | 1814.7 | 1815.8 | 2.3 | 5.0 | 3.4 | | 0 |
| | 2800 | OTTA | 21 | GRF | 1837.0 | 1851 | 135.0 | 10.2 | 3.4 | | |
| | 4995 | SGMR | 4 | S/F | 1844.5 | 1847.8 | 6.3 | 11 | | | |
| | 2695 | SGMR | 4 | S/F | 1844.8 | 1848.0 | 6.2D | 10 | | | |
| | 2800 | OTTA | 3 | S | 1845.0 | 1848 | 5.0 | 13.0 | 4.6 | | |
| | 410 | PALE | 8 | S | 2111.8 | 2112.3 | 1.2 | 37 | | | |
| 02 | 208 | VORO | 44 | NS | 0000.0E | 0017 | 240.0D | 18.0 | 10.0 | | |
| | 606 | LEAR | 43 | NS | 0509.3 | 0740.8 | 226.2 | 25 | | | |
| | 200 | GORK | 44 | NS | 0555.0E | | 245.0D | | 5.0 | | |
| | 204 | IZMI | 44 | NS | 0700.0E | | 300.0D | 50.0 | | | |
| | 127 | TORN | 44 | NS | 0700.0E | 0735.1 | 480.0D | 410.0 | 2.0 | | V1 |
| | 100 | GORK | 43 | NS | 0709.0 | | 81.0D | | 20.0 | | |
| | 260 | ONDR | 44 | NS | 0830.0E | | 332.0D | 57.0 | 6.0 | | |
| | 410 | PALE | 43 | NS | 2010.6 | 2125.1 | 476.0D | 110 | | | |
| | 245 | PALE | 43 | NS | 2010.0 | 0007.8 | 476.0D | 200 | | | |
| | 200 | HIRA | 44 | NS | 2138.0E | 0607 | 620.0D | 440.0 | 30.0 | | ML |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ $Wm^{-2}$ $Hz^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 02 | 245 | LEAR | 43 NS | 2223.0 | 0650.5 | 749.0D | 360 | | | |
| | 410 | LEAR | 43 NS | 2223.0 | 0725.1 | 749.0D | 210 | | | |
| | 606 | LEAR | 43 NS | 2242.5 | 0722.0 | 729.5D | 160 | | | |
| | 2000 | TYKW | 20 GRF | 0250.0 | 0324 | 60.0 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 20 GRF | 0310.0 | 0324 | 70.0 | 3.0 | 1.5 | | |
| | 1000 | TYKW | 5 S | 0353.8 | 0353.9 | .5 | 9.0 | 2.5 | | |
| | 3750 | TYKW | 21 GRF | 0445.0 | 0550 | 115.0 | 5.0 | 2.5 | | |
| | 2000 | TYKW | 20 GRF | 0500.0 | 0537 | 100.0 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0536.0 | 0536.7 | 8.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 5 S | 0537.9 | 0538.1 | .5 | 15.0 | 2.0 | | |
| | 1000 | TYKW | 5 S | 0538.5 | 0538.6 | .5 | 42.0 | 4.0 | | |
| | 650 | GORK | 22 GRF | 0600.0E | 0728.0 | 171.0D | 32.0 | 6.5 | | |
| | 410 | LEAR | 4 S/F | 0723.5 | 0730.5 | 10.5 | 26 | | | |
| | 606 | LEAR | 4 S/F | 0723.8 | 0728.3 | 14.7 | 59 | | | |
| | 3100 | CRIM | 26 FAL | 0912.0 | 1000.0 | | 9.0 | | | |
| | 204 | IZMI | 4 S/F | 0915.0 | 0915.9 | 1.0 | 360.0 | 230.0 | | |
| | 930 | BORD | 46 C | 1059.8 | 1100.2 | 1.0 | 37.0 | 3.0 | | |
| | 930 | BORD | 41 F | 1329.5 | 1329.7 | .3 | 25.0 | 2.0 | | |
| | 127 | TORN | 4 S/F | 1348.2 | 1349.1 | 1.3 | 90.0 | 40.0 | | |
| | 9400 | HUAN | S | 1519.7 | 1548.6 | 64.5 | 6.7 | 5.2 | | 0 |
| | 2800 | OTTA | 24 R | 1520.0 | 1525 | 5.0 | 4.4 | 2.2 | | |
| | 2800 | OTTA | 27AFRF | 1520.0 | | 215.0 | 4.4 | 4.0 | | |
| | 2800 | OTTA | 24P R | 1525.0 | | 185.0 | 4.4 | | | |
| | 2800 | OTTA | 1 S | 1541.0 | 1542 | 3.0 | 2.6 | 1.3 | | |
| | 2800 | OTTA | 40 F | 1545.0 | 1547 | 3.0 | 11.8 | | | |
| | 9400 | HUAN | S | 1708.1 | 1714.8 | 38.1 | 16.7 | 6.2 | | L |
| | 2800 | OTTA | 46F C | 1709.0 | 1710.8 | 7.0 | 75.0 | 26.4 | | |
| | 9400 | HUAN | S | 1709.8 | 1710.8 | 1.4 | 61.8 | 25.0 | | L |
| | 9400 | HUAN | S | 1712.3 | 1713.3 | 1.9 | 15.0 | 8.4 | | L |
| | 2800 | OTTA | 29 PBI | 1716.0 | 1716 | 25.0 | 4.4 | 2.0 | | |
| | 2800 | OTTA | 26 FAL | 1830.0 | 1855 | 25.0 | -4.2 | -2.6 | | |
| | 2800 | OTTA | 21 GRF | 1900.0 | 1920 | 90.0 | 5.6 | 3.8 | | |
| | 2800 | OTTA | 2 S/F | 1904.0 | 1905 | 6.0 | 8.8 | 3.0 | | |
| | 410 | PALE | 8 S | 2020.0 | 2020.8 | 1.0 | 62 | | | |
| | 606 | PALE | 8 S | 2020.3 | 2020.3 | .2 | 18 | | | |
| | 2695 | PENT | 21 GRF | 2136.0 | 2137.5 | 20.0 | 6.4 | 3.0 | | |
| | 2695 | PENT | 1 S | 2139.6 | 2139.6 | 1.0 | 5.0 | 2.5 | | |
| | 2695 | PENT | 1 S | 2141.0 | 2141.7 | 1.5 | 2.6 | 1.0 | | |
| 03 | 208 | VORO | 44 NS | 0000.0E | 0130 | 240.0D | 30.0 | 12.0 | | |
| | 200 | GORK | 44 NS | 0600.0E | | 480.0D | | 15.0 | | |
| | 100 | GORK | 44 NS | 0607.0E | | 480.0D | | 5.0 | | |
| | 127 | TORN | 44 NS | 0700.0E | | 480.0D | | 3.0 | | V1,DISTURBED |
| | 204 | IZMI | 44 NS | 0700.0E | | 300.0D | 50.0 | | | |
| | 260 | ONDR | 44 NS | 0840.0E | | 332.0D | 135.0 | 12.0 | | |
| | 245 | SGMR | 43 NS | 1200.0 | 1813.1 | 595.0D | 360 | | | |
| | 245 | PALE | 43 NS | 1726.0 | 1742.8 | 641.0D | 139 | | | |
| | 200 | HIRA | 44 NS | 2136.0E | 0649 | 630.0D | 140.0 | 30.0 | | ML |
| | 245 | LEAR | 43 NS | 2224.0 | 0650.8 | 748.0D | 330 | | | |
| | 410 | LEAR | 43 NS | 2238.5 | 0641.8 | 651.5 | 160 | | | |
| | 245 | LEAR | 8 S | 0007.8 | 0008.0 | .3 | 320 | | | |
| | 3750 | TYKW | 21 GRF | 0105.0 | 0112 U | 70.0 | 5.0U | 2.0U | | |
| | 9400 | TYKW | 20 GRF | 0106.0 | 0112 | 70.0 | 5.0 | 2.0 | | |
| | 8800 | PALE | 8 S | 0112.8 | 0113.8 | .3 | 13 | | | |
| | 410 | LEAR | 4 S/F | 0522.0 | 0523.1 | 5.6 | 47 | | | |
| | 245 | LEAR | 4 S/F | 0522.1 | 0523.5 | 5.7 | 38 | | | |
| | 606 | LEAR | 4 S/F | 0522.5 | 0524.0 | 3.3 | 16 | | | |
| | 2000 | TYKW | 21 GRF | 0538.0 | 0610 | 90.0 | 6.0 | 3.0 | | |
| | 9400 | TYKW | 21 GRF | 0538.0 | 0610 | 90.0 | 9.0 | 5.0 | | |
| | 3750 | TYKW | 21 GRF | 0538.0 | 0610 | 80.0 | 8.0 | 4.5 | | |
| | 1000 | TYKW | 45 C | 0538.0 | 0543.0 | 12.0 | 21.0 | 8.0 | | |
| | 3750 | TYKW | 5 S | 0540.0 | 0543.2 | 15.0 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 5 S | 0540.0 | 0543.2 | 20.0 | 12.0 | 3.5 | | |
| | 9400 | TYKW | 5 S | 0541.0 | 0543.1 | 3.0 | 4.0 | 2.0 | | |
| | 2695 | LEAR | 4 S/F | 0541.1 | 0543.5 | 3.0 | 09 | | | |
| | 4995 | LEAR | 4 S/F | 0541.3 | 0543.1 | 3.3 | 08 | | | |
| | 1415 | LEAR | 4 S/F | 0541.6 | 0543.1 | 2.4 | 19 | | | |
| | 8800 | LEAR | 4 S/F | 0541.6 | 0543.3 | 2.7 | 16 | | | |
| | 245 | LEAR | 8 S | 0541.8 | 0543.0 | 2.0 | 41 | | | |
| | 606 | LEAR | 8 S | 0541.8 | 0542.8 | 2.0 | 22 | | | |
| | 410 | LEAR | 8 S | 0542.1 | 0543.1 | 1.5 | 48 | | | |
| | 1000 | TYKW | 42 SER | 0550.6 | 0714.3 | 100.0D | 30.0U | 6.0D | | |
| | 650 | GORK | 22 GRF | 0606.0E | 0723.3 | 115.0D | 110.0 | 30.0 | | |
| | 650 | GORK | 24 R | 0606.0E | | 393.0D | 9.0 | | | |
| | 950 | GORK | 22 GRF | 0630.0 | 0704.0 | 75.0 | 18.0 | | | |
| | 3750 | TYKW | 5 S | 0714.0 | 0714.6 | 3.0 | 2.5 | 1.0 | | |
| | 9400 | TYKW | 5 S | 0714.3 | 0714.5 | .7 | 10.0 | 2.5 | | |
| | 100 | GORK | 46 C | 0732.0 | 0735.1 | .9 | 150.0 | | | |
| | 100 | GORK | | 0732.0 | 0735.6 | | 150.0D | | | |
| | 100 | GORK | 8 S | 0755.9 | 0756.3 | 1.0 | 180.0D | | | |
| | 430 | KRAK | 8 S | 0859.2 | 0859.2 | .1 | 350.0 | | | |
| | 536 | ONDR | 8 S | 0900.0 | 0900 | .3 | 39.0 | | | |
| | 430 | KRAK | 40 F | 0918.0 | | 50.0 | 50.0 | 13.0 | | |
| | 950 | GORK | 1 S | 0921.8 | 0922.2 | 1.0 | 10.0 | | | |
| | 930 | BORD | 46 C | 0922.0 | 0922.2 | 1.1 | 25.0 | 3.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 03 | 810 | KRAK | 1 | S | 0922.0 | 0922.5 | .7 | 21.0 | 5.0 | | |
| | 29 | UPIC | 4 | S/F | 1011.2 | 1012.1 | 1.2 | | | | |
| | 430 | KRAK | 27 | RF | 1015.0 | 1035.7 | 35.0 | 200.0 | 50.0 | | |
| | 808 | ONDR | 41 | F | 1020.0 | 1029.6 | 63.0 | 20.0 | 6.0 | | |
| | 930 | BORD | 45 | C | 1020.0 | 1020.6 | 3.0 | 25.0 | 6.0 | | |
| | 204 | IZMI | 25 | R | 1020.0 | | 3500.0 | 110.0 | 40.0 | | |
| | 536 | ONDR | 41 | F | 1020.6 | 1028.3 | 40.0 | 31.0 | 15.0 | | |
| | 650 | GORK | 22 | GRF | 1021.0 | 1033.0 | 33.0 | 46.0 | 23.0 | | |
| | 930 | BORD | 40 | F | 1021.0 | 1033.6 | 27.0 | 25.0 | 9.0 | | |
| | 950 | GORK | 22 | GRF | 1021.0 | 1034.3 | 27.0 | 11.0 | | | |
| | 810 | KRAK | 27 | RF | 1021.0 | 1029.5 | 27.0U | 27.0 | 11.0U | | |
| | 9100 | GORK | 1 | S | 1052.5 | 1052.8 | 3.0 | 5.4 | 2.5 | | |
| | 930 | BORD | 8 | S | 1052.7 | 1052.7 | .2 | 59.0 | 1.0 | | |
| | 29 | UPIC | 2 | S/F | 1105.1 | 1105.9 | 1.2 | | | | |
| | 3200 | BERN | 22 | GRF | 1109.5 | 1120.3 | 30.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 22 | GFR | 1109.5 | 1110.3 | 37.0 | 28.0 | | | |
| | 11800 | BERN | 22 | GRF | 1110.4 | 1114.0 | 16.0 | 7.0U | | | |
| | 8400 | BERN | 22 | GRF | 1110.4 | 1113.8 | 20.0 | 15.0 | | | |
| | 3100 | CRIM | | | 1110.5 | 1120.0 | | 22.0 | | | |
| | 3100 | CRIM | 45 | C | 1110.5 | 1113.5 | 13.0 | 24.0 | 8.0 | | |
| | 2950 | GORK | 21 | GRF | 1112.6 | 1117.2 | 29.5 | 4.5 | | | |
| | 536 | ONDR | 45 | C | 1112.1 | 1112.1 | 2.5 | 15.0 | 3.4 | | |
| | 950 | GORK | 2 | S/F | 1112.2 | 1113.2 | 2.1 | 7.0 | | | |
| | 2650 | DWIN | 1 | S | 1113.0 | 1114 | 2.0 | 20.0 | 10.0 | | |
| | 9100 | GORK | 22 | GRF | 1113.2 | 1113.7 | 15.2 | 10.0 | | | |
| | 2950 | GORK | 3 | S | 1113.2 | 1113.7 | 1.7 | 14.5 | | | |
| | 650 | GORK | 4 | S/F | 1113.3 | 1113.6 | 1.4 | 20.0 | 10.0 | | |
| | 430 | KRAK | 42 | SER | 1113.6 | 1113.6 | 1.0 | 160.0 | | | |
| | 810 | KRAK | 3 | S | 1119.7 | 1120.3 | 2.0 | 13.0 | 7.0 | | |
| | 2950 | GORK | 3 | S | 1119.7 | 1120.4 | 4.2 | 14.5 | | | |
| | 950 | GORK | 21 | GRF | 1119.8 | 1127.0 | 16.0 | 5.0 | | | |
| | 2650 | DWIN | 2 | S/F | 1120.0 | 1121 | 4.0 | 15.0 | 10.0 | | |
| | 410 | SGMR | 8 | S | 1410.5 | 1411.5 | 1.1 | 31 | | | |
| | 245 | SGMR | 47 | GB | 1410.5 | 1411.5 | 1.1D | 1399 | | | |
| | 2800 | OTTA | 23 | GRF | 1438.0 | 1540 | 110.0 | 5.6 | 2.8 | | |
| | 2800 | OTTA | 2 | S/F | 1438.6 | 1439.3 | 1.3 | 6.0 | 2.8 | | |
| | 228 | HARS | 45 | C | 1439.7 | 1441.3 | 1.8 | 370.0 | 50.0 | | |
| | 2800 | OTTA | 23 | GRF | 1640.0 | 1850 | 400.0 | 20.6 | 10.3 | | |
| | 2695 | PENT | 8 | S | 1711.2 | 1711.2 | .1 | 7.8 | | | |
| | 9400 | HUAN | | S | 1816.0 | 1840.0 | 121.8 | 10.5 | 5.4 | | L |
| | 245 | PALE | 8 | S | 1817.0 | 1817.1 | .6 | 350 | | | |
| | 245 | PALE | 8 | S | 1820.0 | 1820.3 | .8 | 350 | | | |
| 04 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 13.0 | | |
| | 200 | GORK | 44 | NS | 0550.0E | | 370.0D | | 10.0 | | |
| | 606 | LEAR | 43 | NS | 0600.0 | 0626.1 | 60.0 | 43 | | | |
| | 204 | IZMI | 44 | NS | 0700.0E | | 300.0D | 60.0 | | | |
| | 260 | ONDR | 44 | NS | 0832.6E | | 343.0D | 40.0 | 3.0 | | |
| | 127 | TORN | 44 | NS | 1040.0E | 1419.1 | 250.0D | 60.0 | 1.0 | | V0 |
| | 245 | SGMR | 43 | NS | 1159.0 | 1926.6 | 597.0D | 220 | | | |
| | 410 | SGMR | 43 | NS | 1159.0 | 1926.5 | 597.0D | 89 | | | |
| | 245 | PALE | 43 | NS | 1726.0 | 2210.3 | 642.0D | 110 | | | |
| | 200 | HIRA | 44 | NS | 2136.0E | 0410 | 630.0D | 160.0 | 20.0 | | ML |
| | 245 | LEAR | 43 | NS | 2245.0 | 0836.8 | 726.0D | 03 | | | |
| | 410 | LEAR | 43 | NS | 2255.5 | 0646.6 | 634.5 | 97 | | | |
| | 2000 | TYKW | 45 | C | 0508.0 | 0508.6 | 2.0 | 6.0 | 2.0 | | |
| | 1000 | TYKW | 5 | S | 0508.0 | 0509 | 1.5 | 3.0 | 1.0 | | |
| | 650 | GORK | 22 | GRF | 0600.0E | 0628.5 | 150.0D | 33.0 | 10.0 | | |
| | 3100 | CRIM | 26 | FAL | 0748.0 | 1200.0 | | 11.0 | | | |
| | 430 | KRAK | 40 | F | 0917.5 | | 33.5 | 60.0U | 8.0U | | |
| | 127 | TORN | 47 | GB | 1051.5 | 1053.1 | 3.2 | 680.0 | 100.0 | | |
| | 536 | ONDR | 4 | S/F | 1051.7 | 1053,6 | 2.5 | 76.0 | 25.0 | | |
| | 430 | KRAK | 4 | S/F | 1052.5 | 1053.8 | 4.5 | 300.0 | 36.0 | | |
| | 810 | KRAK | 1 | S | 1052.5 | 1053.5 | 1.5 | 7.0 | 3.0 | | |
| | 29 | UPIC | 4 | S/F | 1055.5 | 1055.8 | .8 | | | | |
| | 810 | KRAK | 8 | S | 1113.5 | 1113.7 | .3 | 160.0 | | | |
| | 536 | ONDR | 45 | C | 1223.3 | 1223.3 | 1.5 | 35.0 | 3.7 | | |
| | 430 | KRAK | 4 | S/F | 1223.5 | 1223.5 | 1.7 | 80.0 | 10.0 | | |
| | 810 | KRAK | 8 | S | 1225.2 | 1225.3 | .2 | 11.0 | | | |
| | 127 | TORN | 47 | GB | 1414.3 | 1416.3 | 3.8 | 2000.0 | 100.0 | | |
| | 228 | HARS | 45 | C | 1414.5 | 1416.3 | 3.2 | 120.0 | 15.0 | | |
| | 2800 | OTTA | 20 | GRF | 1710.0 | 1800 | 130.0 | 3.8 | 1.9 | | |
| | 9400 | HUAN | | S | 1735.0 | 1738.0 | 89.0 | 10.0 | 7.5 | | 0 |
| | 2800 | OTTA | 20 | GRF | 2010.0 | 2100 | 175.0 | 7.8 | 3.9 | | |
| | 9400 | TYKW | 5 | S | 2353.6 | 2353.8 | 3.0 | 4.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 2353.0 | 2353.8 | 2.0 | 3.0 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 2353.5 | 2354 | 1.5 | 2.0 | .5 | | |
| | 3750 | TYKW | 5 | S | 2357.0 | 2359.6 | 15.0 | 3.0 | 1.0 | | |
| | 9400 | TYKW | 20 | GRF | 2357.0 | 2359 | 30.0 | 4.5 | 2.0 | | |
| 05 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 11.0 | | |
| | 100 | GORK | 44 | NS | 0606.0E | | 384.0D | | 5.0 | | |
| | 200 | GORK | 44 | NS | 0612.0E | | 378.0D | | 15.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1345.9 | 500.0D | 50.0 | 13.0 | | V0 |
| | 204 | IZMI | 44 | NS | 0700.0E | | 300.0D | 65.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 05 | 260 | ONDR | 44 | NS | 0820.0E | | 377.0D | 101.0 | 12.0 | | |
| | 245 | SGMR | 43 | NS | 1158.0 | 1214.3 | 599.0D | 700 | | | |
| | 245 | PALE | 43 | NS | 1726.0 | 0324.1 | 642.0D | 150 | | | |
| | 200 | HIRA | 44 | NS | 2135.0E | 0545 | 630.0D | 75.0 | 40.0 | | ML |
| | 100 | HIRA | 44 | NS | 2135.0E | 0535 | 630.0D | 220.0 | 90.0 | | ML |
| | 245 | LEAR | 43 | NS | 2235.0 | 0637.0 | 736.0D | 290 | | | |
| | 410 | LEAR | 43 | NS | 2310.0 | 0753.1 | 701.0D | 390 | | | |
| | 3750 | TYKW | 5 | S | 0050.0 | 0051 | 3.0 | 1.0 | .5 | | |
| | 2000 | TYKW | 5 | S | 0050.0 | 0050.4 | 2.0 | 4.5 | 2.0 | | |
| | 3750 | TYKW | 21 | GRF | 0125.0 | 0133 | 70.0 | 7.0 | 3.0 | | |
| | 2000 | TYKW | 45 | C | 0125.0 | 0128.6 | 10.0 | 25.0 | 9.0 | | |
| | 1000 | TYKW | 45 | C | 0125.0 | 0126.3 | 10.0 | 56.0 | 5.0 | | |
| | 9400 | TYKW | 21 | GRF | 0125.0U | 0134 U | 60.0U | 12.0U | 4.0U | | INTERFERENCE |
| | 2000 | TYKW | 30 | PBI | 0135.0 | | 65.0 | 5.0 | 2.0 | | |
| | 9400 | TYKW | 5 | S | 0208.0 | 0209.5 | 5.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0208.0 | 0209.5 | 10.0 | 1.5 | .5 | | |
| | 2000 | TYKW | 45 | C | 0208.0 | 0209.6 | 7.0 | 18.0 | 3.0 | | |
| | 1000 | TYKW | 5 | S | 0209.0 | 0209.6 | 2.0 | 1.0 | .3 | | |
| | 1000 | TYKW | 8 | S | 0213.3 | 0213.4 | .3 | 8.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 0217.0 | 0218 | 3.0 | 1.0 | .5 | | |
| | 1000 | TYKW | 45 | C | 0222.0 | 0224.9 | 7.0 | 22.0 | 3.5 | | |
| | 650 | GORK | 22 | GRF | 0715.0 | 0721.0 | 69.0 | 7.5 | | | |
| | 650 | GORK | 22 | GRF | 1210.0 | 1226.6 | 15.0 | 9.5 | | | |
| | 930 | BORD | 41 | F | 1635.6 | 1636.3 | 1.0 | 51.0 | 2.0 | | |
| | 930 | BORD | 8 | S | 1639.4 | 1639.4 | .1 | 22.0 | 1.0 | | |
| | 2800 | OTTA | 40 | F | 1730.0 | 1733.5 | 7.0 | 5.2 | | | |
| | 2800 | OTTA | 20 | GRF | 1805.0 | 1830 | 100.0 | 3.2 | 1.6 | | |
| | 2695 | PENT | 24 | OAR | 2050.0 | 2315 | 145.0 | 12.2 | | | |
| | 2800 | OTTA | 20 | GRF | 2110.0 | 2125 | 55.0 | 9.4 | 4.7 | | |
| | 9400 | HUAN | | S | 2117.7 | 2136.8 | 37.4 | 10.1 | 3.1 | | 8 |
| | 9400 | TYKW | 21 | GRF | 2220.0 | 2300 | 90.0 | 12.0 | 6.0 | | |
| | 2695 | PENT | 21 | GRF | 2225.0 | 2247 | 50.0 | 9.4 | 3.2 | | |
| | 3750 | TYKW | 21 | GRF | 2230.0U | 2300 | 70.0U | 8.0 | 4.0 | | |
| | 2695 | PENT | 8 | S | 2230.2 | 2230.2 | .1 | 5.0 | | | |
| | 2695 | PENT | 4 | S/F | 2232.0 | 2234 | 4.0 | 10.6 | 3.6 | | |
| | 1000 | TYKW | 45 | C | 2232.0 | 2233.1 | 2.5 | 20.0 | 5.0 | | |
| | 2000 | TYKW | 45 | C | 2232.0 | 2233.8 | 3.5 | 65.0 | 15.0 | | |
| | 1415 | PALE | 4 | S/F | 2232.1 | 2233.6 | 2.5 | 150 | | | |
| | 9400 | TYKW | 5 | S | 2232.5 | 2233.6 | 3.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 2232.5 | 2234.2 | 2.5 | 5.0 | 2.0 | | |
| | 2695 | PALE | 8 | S | 2233.3 | 2234.1 | 1.0 | 18 | | | |
| | 8800 | PALE | 8 | S | 2234.1 | 2236.0 | .2 | 21 | | | |
| | 4995 | PALE | 8 | S | 2234.1 | 2234.1 | .2 | 11 | | | |
| | 15400 | PALE | 8 | S | 2234.3 | 2236.1 | .2 | 29 | | | |
| | 3750 | TYKW | 5 | S | 2245.0 | 2248.0 | 5.0 | 4.0 | 1.5 | | |
| 06 | 208 | VORO | 44 | NS | 0000.0E | 0115 | 240.0D | 380.0 | 22.0 | | |
| | 606 | LEAR | 43 | NS | 0300.0 | 0627.8 | 471.0D | 23 | | | |
| | 100 | GORK | 44 | NS | 0557.0E | | 393.0D | | 20.0 | | |
| | 200 | GORK | 44 | NS | 0558.0E | | 394.0D | | 20.0 | | |
| | 204 | IZMI | 44 | NS | 0700.6E | | 300.0D | 80.0 | | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1337.3 | 460.0D | 1400.0 | 68.0 | | V1 |
| | 430 | KRAK | 44 | NS | 0750.0E | 0753.4 | 350.0D | 350.0 | | | |
| | 260 | ONDR | 44 | NS | 0820.0E | | 374.0D | 78.0 | 5.0 | | |
| | 245 | PALE | 43 | NS | 1725.0 | 1840.8 | 643.0D | 270 | | | |
| | 200 | HIRA | 44 | NS | 2134.0E | 2221 | 640.0D | 60.0 | 20.0 | | ML |
| | 100 | HIRA | 44 | NS | 2134.0E | 0211 | 640.0D | 200.0 | 30.0 | | ML |
| | 245 | LEAR | 43 | NS | 2226.0 | 0010.8 | 744.0D | 130 | | | |
| | 410 | LEAR | 43 | NS | 2226.0 | 0840.5 | 744.0D | 98 | | | |
| | 9400 | TYKW | 21 | GRF | 0015.0 | 0055 | 110.0 | 9.0 | 4.0 | | |
| | 3750 | TYKW | 28 | PRE | 0015.0 | 0022 | 11.0 | 3.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 0022.7 | 0023.3 | 1.5 | 6.0 | 2.0 | | |
| | 1000 | TYKW | 45 | C | 0023.0 | 0023.6 | 1.0 | 11.0 | 4.0 | | |
| | 3750 | TYKW | 5 | S | 0026.0 | 0028.5 | 7.0 | 40.0 | 15.0 | | |
| | 2000 | TYKW | 5 | S | 0026.0 | 0028.5 | 6.0 | 18.0 | 6.0 | | |
| | 9400 | TYKW | 5 | S | 0027.0 | 0028.5 | 3.0 | 8.0 | 3.0 | | |
| | 1000 | TYKW | 5 | S | 0027.0 | 0028.3 | 4.0 | 9.0 | 2.5 | | |
| | 606 | LEAR | 4 | S/F | 0027.1 | 0028.3 | 2.5 | 09 | | | |
| | 4995 | LEAR | 8 | S | 0027.3 | 0028.3 | 2.0 | 29 | | | |
| | 2695 | LEAR | 4 | S/F | 0027.3 | 0028.3 | 2.3 | 34 | | | |
| | 1415 | LEAR | 8 | S | 0028.1 | 0028.3 | .2 | 13 | | | |
| | 3750 | TYKW | 30 | PBI | 0033.0 | | 90.0 | 8.0 | 4.0 | | |
| | 3750 | TYKW | 5 | S | 0050.0 | 0052 | 11.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0244.7 | 0245.3 | 1.0 | 12.0 | 2.5 | | |
| | 2000 | TYKW | 5 | S | 0410.0 | 0415 | 20.0 | 3.0 | 1.0 | | |
| | 3100 | CRIM | 26 | FAL | 0608.0 | 0848.0 | | 9.0 | | | |
| | 500 | HIRA | 46 | C | 0627.3 | 0627.4 | 1.0 | 28.0 | 16.0 | | SL |
| | 100 | HIRA | 46 | C | 0627.4 | 0627.6 | 1.0 | 480.0 | 210.0 | | SL |
| | 410 | LEAR | 47 | GB | 0711.0 | 0711.3 | .5 | 680 | | | |
| | 606 | LEAR | 8 | S | 0711.3 | 0711.3 | .3 | 460 | | | |
| | 410 | LEAR | 47 | GB | 0753.0 | 0753.1 | 1.1 | 890 | | | |
| | 245 | LEAR | 8 | S | 0759.3 | 0759.3 | .3 | 300 | | | |
| | 410 | LEAR | 8 | S | 0759.3 | 0759.3 | .2 | 170 | | | |
| | 930 | BORD | 8 | S | 0837.4 | 0838.4 | .2 | 24.0 | 2.0 | | |
| | 410 | LEAR | 47 | GB | 0922.8 | 0923.8 | 1.3 | 8100 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 06 | 606 | LEAR | 8 | S | 0923.6 | 0923.8 | .5 | 64 | | | |
| | 536 | ONDR | 8 | S | 0924.2 | 0924.2 | .2 | 73.0 | | | |
| | 430 | KRAK | 8 | S | 0928.7 | 0929.0 | .5 | 550.0 | | | |
| | 11800 | BERN | 20 | GRF | 1010.0 | 1310.3 | 250.0 | 76.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 20 | GRF | 1010.0 | 1310.3 | 250.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 20 | GRF | 1010.0 | 1310.3 | 250.0 | 18.0 | | | ONLY PAPER REC |
| | 8400 | BERN | 20 | GRF | 1010.0 | 1310.3 | 250.0 | 48.0 | | | ONLY PAPER REC |
| | 810 | KRAK | 8 | S | 1156.0 | 1156.1 | .2 | 47.0 | | | |
| | 810 | KRAK | 1 | S | 1215.5 | 1216.0 | 1.2 | 13.0 | 4.0 | | |
| | 9400 | HUAN | | S | 1232.0 | 1300.0 | 100.5 | 18.6 | 9.0 | | 0 |
| | 2800 | OTTA | 20 | GRF | 1310.0E | 1330 | 150.0D | 19.2 | | | |
| | 930 | BORD | 41 | F | 1310.4 | 1311.3 | 1.8 | 51.0 | 2.0 | | |
| | 810 | KRAK | 42 | SER | 1310.5 | 1311.3 | 2.0 | 53.0 | | | |
| | 930 | BORD | 41 | F | 1318.1 | 1318.1 | .2 | 16.0 | 2.0 | | |
| | 810 | KRAK | 42 | SER | 1328.0 | 1328.0 | 2.5 | 28.0 | | | |
| | 536 | ONDR | 8 | S | 1351.3 | 1351.3 | .2 | 57.0 | | | |
| | 536 | ONDR | 8 | S | 1410.7 | 1410.7 | .2 | 42.0 | | | |
| | 930 | BORD | 41 | F | 1620.6 | 1621.2 | 1.4 | 257.0 | 15.0 | | |
| | 2800 | OTTA | 4 | S/F | 1620.7 | 1621.3 | 2.0 | 20.4 | 7.0 | | |
| | 9400 | HUAN | | S | 1621.0 | 1621.3 | 1.2 | 15.2 | 6.8 | | 0 |
| | 2800 | OTTA | 21 | GRF | 1624.0 | 1815 | 215.0 | 6.2 | 3.1 | | |
| | 9400 | HUAN | | S | 1627.9 | 1628.3 | 1.6 | 25.4 | 10.7 | | 0 |
| | 2800 | OTTA | 1 | S | 1753.5 | 1754.6 | 3.5 | 2.4 | 1.2 | | |
| | 2695 | PENT | 21 | GRF | 2120.0 | 2220 | 115.0 | 9.6 | 4.8 | | |
| | 4995 | SGMR | 4 | S/F | 2123.3 | 2125.3 | 4.5D | 119 | | | |
| | 2800 | OTTA | 4 | S/F | 2123.5 | 2125.3 | 5.0 | 70.0 | 26.0 | | |
| | 9400 | HUAN | | | 2123.5 | 2125.5 | | 184.2 | | | |
| | 9400 | HUAN | | C | 2123.5 | 2124.4 | 4.2 | 147.0 | 81.0 | | R |
| | 8800 | SGMR | 4 | S/F | 2123.6 | 2125.3 | 5.2D | 180 | | | |
| | 2695 | SGMR | 4 | S/F | 2123.6 | 2125.1 | 4.2D | 59 | | | |
| | 1415 | SGMR | 4 | S/F | 2123.6 | 2124.8 | 3.5D | 35 | | | |
| | 15400 | PALE | 4 | S/F | 2123.8 | 2125.5 | 2.7 | 110 | | | |
| | 4995 | PALE | 4 | S/F | 2123.8 | 2125.3 | 2.7 | 110 | | | |
| | 2695 | PALE | 4 | S/F | 2123.8 | 2125.3 | 2.7 | 62 | | | |
| | 8800 | PALE | 4 | S/F | 2123.8 | 2125.3 | 2.7 | 200 | | | |
| | 15400 | SGMR | 8 | S | 2124.0 | 2124.6 | 2.0 | 49 | | | |
| | 606 | SGMR | 4 | S/F | 2124.3 | 2125.1 | 2.8D | 46 | | | |
| | 245 | PALE | 8 | S | 2124.8 | 2125.1 | 1.7 | 300 | | | |
| | 1415 | PALE | 8 | S | 2124.8 | 2125.0 | .3 | 27 | | | |
| | 410 | PALE | 8 | S | 2124.8 | 2125.1 | 1.7 | 35 | | | |
| | 245 | SGMR | 8 | S | 2124.8 | 2125.3 | 1.8D | 430 | | | |
| | 606 | PALE | 8 | S | 2124.8 | 2125.1 | 1.7 | 20 | | | |
| | 410 | SGMR | 8 | S | 2125.0 | 2125.3 | .8D | 50 | | | |
| | 2695 | PENT | 4 | S/F | 2159.0 | 2200.5 | 8.0 | 18.0 | 6.2 | | |
| | 606 | LEAR | 8 | S | 2338.5 | 2339.1 | .8 | 11 | | | |
| | 9400 | TYKW | 5 | S | 2338.5 | 2339.3 | 2.5 | 28.0 | 8.0 | | |
| | 3750 | TYKW | 5 | S | 2338.5 | 2339.3 | 2.0 | 20.0 | 5.0 | | |
| | 1000 | TYKW | 45 | C | 2338.5 | 2339.0 | 1.5 | 4.0 | 1.0 | | |
| | 2000 | TYKW | 45 | C | 2338.5 | 2339.0 | 1.5 | 3.0 | 1.0 | | |
| | 4995 | LEAR | 8 | S | 2338.8 | 2339.1 | .7 | 38 | | | |
| | 4995 | PALE | 8 | S | 2339.0 | 2339.1 | .3 | 33 | | | |
| | 4995 | PALE | 8 | S | 2339.0 | 2339.1 | .3 | 33 | | | |
| | 8800 | LEAR | 8 | S | 2339.0 | 2339.1 | .5 | 38 | | | |
| | 8800 | PALE | 8 | S | 2339.1 | 2339.1 | .2 | 43 | | | |
| | 15400 | LEAR | 8 | S | 2339.1 | 2339.1 | .2 | 20 | | | |
| | 9400 | TYKW | 29 | PBI | 2341.0 | | 7.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 2350.0 | 2430 | 120.0 | 7.0 | 3.0 | | |
| 07 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 14.0 | | |
| | 200 | GORK | 44 | NS | 0559.0E | | 358.0D | | 20.0 | | |
| | 100 | GORK | 44 | NS | 0600.0E | | 357.0D | | 20.0 | | |
| | 204 | IZMI | 44 | NS | 0700.0E | | 300.0D | 55.0 | | | |
| | 127 | TORN | 44 | NS | 0700.0E | | 450.0D | | 24.0 | | V2,DISTURBED |
| | 260 | ONDR | 44 | NS | 0836.0E | | 344.0D | 118.0 | 10.0 | | |
| | 245 | SGMR | 43 | NS | 1155.0 | 2048.1 | 605.0D | 410 | | | |
| | 245 | PALE | 43 | NS | 1725.0 | 1931.6 | 644.0D | 63 | | | |
| | 200 | HIRA | 44 | NS | 2133.0E | 2310 | 640.0D | 25.0 | 10.0 | | WL |
| | 410 | LEAR | 43 | NS | 2226.0 | 2348.0 | 744.0D | 46 | | | |
| | 245 | LEAR | 43 | NS | 2226.0 | 0816.1 | 744.0D | 180 | | | |
| | 9400 | TYKW | 21 | GRF | 0000.0 | 0028 | 65.0 | 6.0 | 3.0 | | |
| | 2000 | TYKW | 21 | GRF | 0000.0 | 0030 | 110.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 45 | C | 0009.5 | 0010.8 | 2.5 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0018.0 | 0018.4 | 2.0 | 4.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0027.3 | 0028.0 | 1.5 | 7.0 | 1.5 | | |
| | 2000 | TYKW | 5 | S | 0027.8 | 0028.0 | .5 | 1.0 | .4 | | |
| | 1000 | TYKW | 5 | S | 0027.8 | 0027.9 | .5 | 9.0 | 1.5 | | |
| | 606 | LEAR | 8 | S | 0027.8 | 0027.8 | .3 | 100 | | | |
| | 100 | HIRA | 8 | S | 0028.0 | 0028.0 | .4 | 7000.0 | | | ML |
| | 9400 | TYKW | 5 | S | 0053.0 | 0053.5 | 1.5 | 5.0 | 2.0 | | |
| | 9400 | TYKW | 21 | GRF | 0120.0 | 0130 | 30.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0139.6 | 0139.3 | 1.0 | 4.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0147.6 | 0147.8 | .5 | 3.5 | 1.5 | | |
| | 2000 | TYKW | 5 | S | 0156.0 | 0157 | 4.0 | 1.0 | .3 | | |
| | 2000 | TYKW | 21 | GRF | 0156.0 | 0210 | 55.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 5 | S | 0202.0 | 0202.5 | 1.0 | 1.5 | .5 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 07 | 9400 | TYKW | 21 | GRF | 0210.0 | 0218 | 40.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 20 | GRF | 0210.0 | 0230 | 40.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0229.6 | 0230 | 3.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0301.0 | 0302.9 | 2.5 | 12.0 | 3.0 | | |
| | 8800 | LEAR | 8 | S | 0302.5 | 0302.8 | 1.0 | 15 | | | |
| | 3750 | TYKW | 21 | GRF | 0303.0E | 0320 | 67.0D | 3.0 | 1.0D | | |
| | 9400 | TYKW | 30 | PBI | 0303.5 | | 55.0 | 4.0 | 1.0 | | |
| | 17000 | NOBE | 20 | GRF | 0314.5 | 0320.1 | 22.0 | 20.0 | | | 0 |
| | 9400 | TYKW | 5 | S | 0316.0 | 0319.5 | 9.0 | 13.0 | 4.0 | | |
| | 8800 | LEAR | 8 | S | 0318.8 | 0319.3 | 2.0 | 17 | | | |
| | 9400 | TYKW | 5 | S | 0325.5 | 0326.0 | 1.5 | 5.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 0331.0 | 0340 | 35.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 45 | C | 0332.0 | 0333.1 | 2.0 | 56.0 | 18.0 | | |
| | 8800 | PALE | 8 | S | 0332.8 | 0333.1 | .8 | 49 | | | |
| | 8800 | LEAR | 8 | S | 0332.8 | 0333.0 | .8 | 57 | | | |
| | 15400 | LEAR | 8 | S | 0332.8 | 0333.5 | 1.0 | 66 | | | |
| | 15400 | PALE | 8 | S | 0332.8 | 0333.5 | .8 | 79 | | | |
| | 9400 | TYKW | 30 | PBI | 0334.0 | | 9.0 | 11.0 | 4.0 | | |
| | 3750 | TYKW | 5 | S | 0341.0 | 0341.7 | 1.5 | 2.0 | .5 | | |
| | 4995 | LEAR | 8 | S | 0341.1 | 0341.6 | .9 | 05 | | | |
| | 606 | LEAR | 8 | S | 0341.1 | 0341.3 | .9 | 10 | | | |
| | 8800 | LEAR | 8 | S | 0341.1 | 0341.6 | .9 | 07 | | | |
| | 9400 | TYKW | 45 | C | 0341.2 | 0341.5 | .8 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 45 | C | 0341.3 | 0342.0 | 1.3 | 2.5 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0341.3 | 0341.7 | 1.0 | 1.5 | .5 | | |
| | 245 | LEAR | 47 | GB | 0341.3 | 0341.3 | .7 | 800 | | | |
| | 410 | LEAR | 8 | S | 0341.3 | 0341.3 | .3 | 280 | | | |
| | 410 | LEAR | 8 | S | 0343.3 | 0343.6 | .8 | 31 | | | |
| | 245 | LEAR | 8 | S | 0343.5 | 0343.8 | 1.0 | 170 | | | |
| | 9400 | TYKW | 5 | S | 0353.6 | 0353.3 | 1.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 21 | GRF | 0425.0 | 0450 | 95.0 | 6.0 | 3.0 | | |
| | 2000 | TYKW | 21 | GRF | 0428.0 | 0450 | 115.0 | 6.0 | 3.0 | | |
| | 3750 | TYKW | 21 | GRF | 0428.0 | 0445 | 115.0 | 6.0 | 3.0 | | |
| | 2000 | TYKW | 5 | S | 0438.0 | 0438.7 | 3.0 | 2.0 | .5 | | |
| | 3750 | TYKW | 5 | S | 0449.0 | 0451 | 4.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 45 | C | 0450.0 | 0450.6 | 2.0 | 5.0 | 1.5 | | |
| | 410 | LEAR | 8 | S | 0450.8 | 0451.1 | .7 | 320 | | | |
| | 606 | LEAR | 8 | S | 0450.8 | 0451.0 | .8 | 15 | | | |
| | 3750 | TYKW | 5 | S | 0456.0 | 0504 | 12.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0503.0 | 0503.8 | 2.0 | 11.0 | 2.5 | | |
| | 15400 | LEAR | 8 | S | 0503.3 | 0503.8 | 1.2 | 18 | | | |
| | 17000 | NOBE | 1 | S | 0503.4 | 0503.7 | 1.0 | 10.0 | | | 0 |
| | 8800 | LEAR | 8 | S | 0503.5 | 0503.8 | .8 | 20 | | | |
| | 9400 | TYKW | 5 | S | 0524.7 | 0525.4 | 2.0 | 6.0 | 2.0 | | |
| | 245 | LEAR | 8 | S | 0644.3 | 0644.6 | .5 | 71 | | | |
| | 9400 | TYKW | 5 | S | 0730.6 | 0731.0 | .8 | 12.0 | 4.0 | | |
| | 245 | LEAR | 8 | S | 0731.0 | 0731.3 | .5 | 139 | | | |
| | 245 | LEAR | 8 | S | 0815.3 | 0815.8 | .8 | 139 | | | |
| | 204 | IZMI | 5 | S | 0815.4 | 0816.0 | .9 | 180.0 | 70.0 | | |
| | 100 | GORK | | | 0815.5 | 0816.3 | | 220.0D | | | |
| | 100 | GORK | 45 | C | 0815.5 | 0815.8 | 1.8 | 220.0D | | | |
| | 100 | GORK | 45 | C | 0815.5 | 0815.8 | 1.8D | 220.0D | | | |
| | 430 | KRAK | 42 | SER | 0828.5 | 0830.0 | 12.3 | 90.0 | | | |
| | 2950 | GORK | 1 | S | 0836.6 | 0837.8 | 5.9 | 5.0 | 2.5 | | |
| | 810 | KRAK | | | 0921.2 | 1036.3 | | 106.0 | | | |
| | 810 | KRAK | | | 0921.2 | 1023.2 | | 155.0 | | | |
| | 810 | KRAK | 42 | SER | 0921.2 | 0921.2 | 308.0 | 131.0 | | | |
| | 810 | KRAK | | | 0921.2 | 1254.3 | | 104.0 | | | |
| | 810 | KRAK | | | 0921.2 | 1059.0 | | 87.0 | | | |
| | 810 | KRAK | | | 0921.2 | 1343.5 | | 51.0 | | | |
| | 2950 | GORK | 1 | S | 0921.8 | 0922.0 | .7 | 3.0 | 1.5 | | |
| | 100 | GORK | 8 | S | 0938.0 | 0938.5 | 1.0 | 240.0D | | | |
| | 650 | GORK | 40 | F | 0943.7 | | 26.0 | 7.5 | | | |
| | 204 | IZMI | 8 | S | 0952.5 | 0952.5 | .3 | 200.0 | 50.0 | | |
| | 100 | GORK | | | 0955.2 | 1011.0U | | 240.0D | | | |
| | 100 | GORK | | | 0955.2 | 1009.0U | | 240.0D | | | |
| | 100 | GORK | | | 0955.2 | 1020.0U | | 240.0D | | | |
| | 100 | GORK | 41 | F | 0955.2 | 0955.6U | 26.0 | 245.0D | | | |
| | 606 | LEAR | 8 | S | 0957.8 | 0958.0 | .3 | 29 | | | |
| | 29 | UPIC | 42 | SER | 1002.3 | | 56.8 | | | | |
| | 9100 | GORK | 22 | GRF | 1010.9 | 1015.6 | 10.0 | 17.0 | | | |
| | 6100 | KISV | | | 1012.0 | 1015.6 | | 5.0 | | | |
| | 6100 | KISV | | | 1012.0 | 1012.9 | | 2.0 | | | |
| | 6100 | KISV | 40 | F | 1012.0 | 1018.9 | 12.0 | 10.0 | | | |
| | 3200 | BERN | 21 | GRF | 1015.1 | 1018.6 | 10.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 21 | GRF | 1015.1 | 1018.7 | 10.0 | 18.0 | | | |
| | 200 | GORK | 4 | S/F | 1017.3 | 1019.8 | 2.8 | 320.0 | | | |
| | 4995 | ATHN | 4 | S/F | 1017.8 | 1018.8 | 3.5 | 19 | | | |
| | 2695 | ATHN | 4 | S/F | 1017.8 | 1018.8 | 2.8D | 15 | | | |
| | 2650 | DWIN | 1 | S | 1018.0 | 1019 | 2.0 | 20.0 | 10.0 | | |
| | 930 | BORD | 42 | SER | 1018.0 | 1018.8 | 6.0 | 156.0 | 8.0 | | |
| | 204 | IZMI | 41 | F | 1018.0 | 1022.0 | 5.6 | 700.0 | | | |
| | 1415 | ATHN | 4 | S/F | 1018.1 | 1018.8 | 3.0D | 64 | | | |
| | 245 | LEAR | 47 | GB | 1018.5 | 1019.5 | 1.8 | 520 | | | |
| | 3100 | CRIM | 1 | S | 1018.3 | 1018.8 | 2.0 | 23.0 | 7.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 07 | 430 | KRAK | | | 1018.5 | 1344.5 | | 110.0 | | | |
| | 808 | ONDR | 42 | SER | 1018.5 | 1036.2 | 56.0 | 85.0 | | | |
| | 430 | KRAK | 42 | SER | 1018.5 | 1056.0 | 207.0 | 200.0 | | | |
| | 430 | KRAK | | | 1018.5 | 1253.5 | | 280.0 | | | |
| | 950 | GORK | 3 | S | 1018.6 | 1019.0 | 3.0 | 80.0 | | | |
| | 606 | LEAR | 8 | S | 1018.6 | 1018.6 | .5 | 150 | | | |
| | 410 | LEAR | 8 | S | 1018.6 | 1018.8 | .5 | 68 | | | |
| | 1415 | LEAR | 8 | S | 1018.6 | 1018.6 | .4 | 66 | | | |
| | 4995 | LEAR | 8 | S | 1018.6 | 1018.6 | .5 | 24 | | | |
| | 2695 | LEAR | 8 | S | 1018.6 | 1018.8 | .5 | 32 | | | |
| | 650 | GORK | | | 1018.7 | 1023.2 | | 29.0 | | | |
| | 2950 | GORK | 1 | S | 1018.7 | 1019.0 | 2.4 | 18.5 | 9.0 | | |
| | 650 | GORK | 46 | C | 1018.7 | 1018.9 | 5.1 | 58.0 | | | |
| | 536 | ONDR | 42 | SER | 1018.8 | 1019 | 60.0 | 31.0 | | | |
| | 950 | GORK | 4 | S/F | 1021.5 | 1023.2 | 2.0 | 27.0 | | | |
| | 245 | LEAR | 8 | S | 1021.6 | 1023.1 | 1.7 | 340 | | | |
| | 410 | LEAR | 8 | S | 1022.8 | 1023.1 | .5 | 64 | | | |
| | 930 | BORD | 8 | S | 1029.8 | 1029.8 | .1 | 15.0 | 1.0 | | |
| | 930 | BORD | 46 | C | 1035.5 | 1035.9 | 1.0 | 200.0 | 12.0 | | |
| | 950 | GORK | 4 | S/F | 1035.6 | 1036.1 | 1.0 | 82.0 | | | |
| | 9100 | GORK | 22 | GRF | 1048.0 | 1051.6 | 21.0 | 11.0 | | | |
| | 204 | IZMI | 41 | F | 1054.0 | 1054.0 | 7.0 | 900.0 | | | |
| | 650 | GORK | 40 | F | 1056.6 | 1059.9 | 3.0 | 24.0 | | | |
| | 930 | BORD | 41 | F | 1058.4 | 1059 | 1.1 | 101.0 | 2.0 | | |
| | 950 | GORK | 2 | S/F | 1058.5 | 1059.5 | 1.2 | 14.0 | | | |
| | 930 | BORD | 8 | S | 1115.3 | 1115.4 | .2 | 83.0 | 1.0 | | |
| | 5200 | BERN | 21 | GRF | 1142.0 | 1238.0 | 60.0 | 16.0 | | | |
| | 3200 | BERN | 21 | GRF | 1145.0 | 1237.8 | 50.0 | .0 | | | ONLY PAPER REC |
| | 930 | BORD | 41 | F | 1155.7 | 1156 | .4 | 179.0 | 2.0 | | |
| | 808 | ONDR | 42 | SER | 1156.0 | 1156.2 | 110.0 | 28.0 | | | |
| | 536 | ONDR | 42 | SER | 1216.0 | 1345.3 | 107.0 | 63.0 | | | |
| | 930 | BORD | 41 | F | 1218.2 | 1218.3 | .6 | 15.0 | 3.0 | | |
| | 8400 | BERN | 21 | GRF | 1235.6 | 1238.0 | 35.0 | 23.0 | | | |
| | 10715 | DWIN | 1 | S | 1237.0 | 1238 | 2.0 | 20.0 | 10.0 | | |
| | 9400 | HUAN | | S | 1237.2 | 1238.0 | 2.4 | 14.1 | 7.0 | | L |
| | 11800 | BERN | 21 | GRF | 1238.0 | 1238.0 | 24.0 | 13.0 | | | |
| | 29 | UPIC | 45 | C | 1252.3 | 1253.9 | 3.2 | | | | |
| | 930 | BORD | 46 | C | 1253.0 | 1255 | 2.6 | 62.0 | 5.0 | | |
| | 245 | SGMR | 47 | GB | 1342.3 | 1343.1 | 7.5D | 3800 | | | |
| | 245 | SGMR | 47 | GB | 1342.3 | 1343.1 | 7.5D | 3800 | | | |
| | 10715 | DWIN | 1 | S | 1343.0 | 1343.5 | 1.0 | 20.0 | 10.0 | | |
| | 2650 | DWIN | 2 | S/F | 1343.0 | 1344 | 2.0 | 30.0 | 10.0 | | |
| | 29 | UPIC | 45 | C | 1343.1 | 1344 | 2.4 | | | | |
| | 606 | SGMR | 4 | S/F | 1343.1 | 1345.0 | 2.9 | 130 | | | |
| | 1415 | SGMR | 8 | S | 1343.1 | 1343.8 | 1.4D | 11 | | | |
| | 3200 | BERN | 3 | S | 1343.1 | 1343.8 | 4.0 | .0 | | | ONLY PAPER REC |
| | 606 | SGMR | 4 | S/F | 1343.1 | 1345.0 | 2.9 | 130 | | | |
| | 5200 | BERN | 3 | S | 1343.1 | 1344.0 | 7.0 | 31.0 | | | |
| | 11800 | BERN | 3 | S | 1343.1 | 1344.0 | 2.0 | 21.0 | | | |
| | 8400 | BERN | 3 | S | 1343.1 | 1344.0 | 4.0 | 35.0 | | | |
| | 2695 | SGMR | 4 | S/F | 1343.1 | 1344.0 | 2.2D | 27 | | | |
| | 4995 | SGMR | 8 | S | 1343.3 | 1344.0 | 2.0D | 27 | | | |
| | 930 | BORD | 46 | C | 1343.3 | 1343.9 | 1.2 | 47.0 | 4.0 | | |
| | 9400 | HUAN | | S | 1343.3 | 1344.1 | 1.7 | 18.8 | 6.8 | | 0 |
| | 228 | HARS | 45 | C | 1343.6 | 1344.3 | 1.5 | 450.0 | 205.0 | | |
| | 15400 | SGMR | 8 | S | 1343.6 | 1344.0 | 1.0 | 15 | | | |
| | 2800 | OTTA | 4 | S/F | 1343.6 | 1344 | 1.5 | 30.8 | 7.6 | | |
| | 8800 | SGMR | 8 | S | 1343.6 | 1344.0 | 1.4D | 35 | | | |
| | 410 | SGMR | 8 | S | 1343.8 | 1344.1 | .8D | 76 | | | |
| | 29 | UPIC | 45 | C | 1348.1 | 1348.4 | 1.8 | | | | |
| | 9400 | HUAN | | S | 1401.1 | 1419.0 | 33.8 | 4.7 | 1.9 | | 0 |
| | 127 | TORN | 47 | GB | 1412.9 | 1413.4 | 2.5 | 6800.0 | 3400.0 | | |
| | 127 | TORN | 47 | GB | 1418.1 | 1418.5 | 2.0 | 5500.0D | 2700.0 | | SATURATED |
| | 2800 | OTTA | 20 | GRF | 1420.0E | 1435 | 65.0D | 5.4 | | | |
| | 930 | BORD | 45 | C | 1533.7 | 1534.5 | 4.4 | 614.0 | 12.0 | | |
| | 2650 | DWIN | 2 | S/F | 1534.0 | 1535 | 3.0 | 50.0 | 30.0 | | |
| | 2800 | OTTA | 4 | S/F | 1534.0 | 1534.5 | 4.0 | 61.0 | 15.0 | | |
| | 3200 | BERN | 4 | S/F | 1534.0 | 1534.3 | 8.0 | .0 | | | ONLY PAPER REC |
| | 3200 | BERN | 4 | S/F | 1534.0 | 1534.3 | 8.0 | .0 | | | ONLY PAPER REC |
| | 11800 | BERN | 4 | S/F | 1534.1 | 1535.0 | 4.0 | 36.0 | | | |
| | 8400 | BERN | 4 | S/F | 1534.1 | 1535.0 | 5.0 | 60.0 | | | |
| | 9400 | HUAN | | S | 1534.1 | 1535.1 | 1.7 | 40.7 | 20.0 | | R |
| | 9400 | HUAN | | PBI | 1535.8 | 1535.8 | 17.5 | 6.3 | 3.4 | | 0 |
| | 2800 | OTTA | 1 | S | 1546.0 | 1547 | 2.0 | 3.8 | 1.4 | | |
| | 2800 | OTTA | 1 | S | 1551.8 | 1552.4 | 1.5 | 3.8 | 1.8 | | |
| | 2800 | OTTA | 21 | GRF | 1625.0 | 1900 | 260.0 | 17.8 | 8.0 | | |
| | 2800 | OTTA | 4 | S/F | 1640.0 | 1640.8 | 3.0 | 14.2 | | | |
| | 9400 | HUAN | | S | 1640.0 | 1640.8 | 2.8 | 40.7 | 21.1 | | 0 |
| | 9400 | HUAN | | PBI | 1642.8 | 1642.8 | 18.6 | 7.8 | 6.1 | | 0 |
| | 2800 | OTTA | 1 | S | 1645.0 | 1647 | 4.0 | 2.0 | 1.2 | | |
| | 2800 | OTTA | 3 | S | 1719.5 | 1720.1 | 1.0 | 19.0 | 9.5 | | |
| | 2800 | OTTA | 8 | S | 1739.7 | 1739.9 | .5 | 4.8 | 2.4 | | |
| | 2800 | OTTA | 21 | GRF | 1755.0 | 1800 | 22.0 | 4.4 | 2.2 | | |
| | 2800 | OTTA | 1 | S | 1755.5 | 1756 | 1.0 | 3.8 | 1.9 | | |
| | 2800 | OTTA | 1 | S | 1757.2 | 1757.9 | 2.0 | 6.0 | 2.8 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 07 | 9400 | HUAN | | S | 1758.7 | 1841.0 | 131.3 | 9.4 | 4.4 | | L |
| | 2695 | SGMR | 4 | S/F | 1831.1 | 1832.5 | 10.4D | 139 | | | |
| | 4995 | SGMR | 4 | S/F | 1831.1 | 1832.5 | 24.9D | 110 | | | |
| | 1415 | SGMR | 4 | S/F | 1831.3 | 1832.5 | 8.3D | 50 | | | |
| | 8800 | SGMR | 4 | S/F | 1831.3 | 1832.5 | 20.2D | 160 | | | |
| | 2800 | OTTA | 46F | C | 1831.5 | 1832.3 | 8.0 | 146.0 | 23.4 | | |
| | 15400 | SGMR | 4 | S/F | 1831.6 | 1832.3 | 13.2 | 130 | | | |
| | 9400 | HUAN | | C | 1831.7 | 1832.6 | 7.9 | 159.7 | 37.2 | | L |
| | 4995 | PALE | 4 | S/F | 1831.6 | 1832.5 | 6.2 | 81 | | | |
| | 2695 | PALE | 47 | GB | 1831.8 | 1832.5 | 5.0 | 150 | | | |
| | 8800 | PALE | 47 | GB | 1832.0 | 1832.5 | 6.1 | 170 | | | |
| | 15400 | PALE | 47 | GB | 1832.0 | 1832.5 | 7.8 | 130 | | | |
| | 1415 | PALE | 8 | S | 1832.1 | 1832.6 | .9 | 49 | | | |
| | 606 | SGMR | 47 | GB | 1832.3 | 1832.5 | 16.2D | 1199 | | | |
| | 606 | PALE | 47 | GB | 1832.3 | 1832.3 | .2 | 730 | | | |
| | 410 | SGMR | 4 | S/F | 1832.5 | 1836.0 | 7.0D | 330 | | | |
| | 245 | SGMR | 4 | S/F | 1833.3 | 1836.0 | 7.0D | 100 | | | |
| | 245 | PALE | 8 | S | 1835.6 | 1835.6 | .2 | 180 | | | |
| | 410 | PALE | 8 | S | 1836.0 | 1836.1 | .1 | 210 | | | |
| | 2800 | OTTA | 45 | C | 1848.0 | 1849.7 | 2.5 | 5.6 | 1.8 | | |
| | 9400 | HUAN | | S | 1849.2 | 1849.7 | 1.9 | 15.7 | 12.8 | | 0 |
| | 1415 | SGMR | 4 | S/F | 2058.0 | 2059.5 | 5.1D | 11 | | | |
| | 2695 | SGMR | 4 | S/F | 2058.3 | 2049.6 | 3.3D | 33 | | | |
| | 2800 | OTTA | 4 | S/F | 2058.5 | 2059.7 | 3.0 | 38.0 | 13.0 | | |
| | 4995 | SGMR | 4 | S/F | 2058.6 | 2059.3 | 2.7 | 24 | | | |
| | 2695 | PALE | 8 | S | 2059.1 | 2059.6 | 1.9 | 40 | | | |
| | 4995 | PALE | 8 | S | 2059.3 | 2059.5 | .3 | 27 | | | |
| | 2800 | OTTA | 30 | PBI | 2101.5 | 2101.5 | 15.0 | 3.4 | 1.7 | | |
| | 2800 | OTTA | 40 | F | 2102.5 | 2102.7 | 1.0 | 6.8 | | | |
| | 2800 | TYKW | 45 | C | 2217.5U | 2218.7 | 2.0U | 19.0U | 6.0U | | |
| | 1000 | TYKW | 45 | C | 2217.7 | 2218.3 | 1.5 | 130.0 | 25.0 | | |
| | 9400 | TYKW | 45 | C | 2218.0 | 2220.2 | 4.0 | 1.4 | 3.0 | | |
| | 3750 | TYKW | 45 | C | 2218.0 | 2218.8 | 1.0 | 39.0 | 13.0 | | |
| | 9400 | TYKW | 21 | GRF | 2218.0 | 2233 | 35.0 | 11.0 | 4.0 | | |
| | 2695 | PENT | 46F | C | 2218.0 | 2220 | 3.0 | 38.0 | 9.8 | | |
| | 1000 | TYKW | 45 | C | 2220.6 | 2220.2 | .5 | 170.0 | 40.0 | | |
| | 3750 | TYKW | 5 | S | 2220.0 | 2220.2 | .5 | 22.0 | 6.0 | | |
| | 2000 | TYKW | 5 | S | 2220.0 | 2220.2 | .5 | 26.0 | 9.0 | | |
| | 3750 | TYKW | 45 | C | 2225.0 | 2226.6 | 15.0 | 5.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 2225.7 | 2226.3 | 1.5 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 2225.7 | 2226.7 | 1.5 | 5.0 | 2.0 | | |
| | 2695 | PENT | 2 | S/F | 2226.0 | 2226.5 | 1.0 | 3.6 | 1.8 | | |
| | 1000 | TYKW | 8 | S | 2226.4 | 2226.5 | .3 | 7.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 2257.0 | 2259 | 8.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 45 | C | 2306.2 | 2306.4 | 1.0 | 12.0 | 2.0 | | |
| | 2000 | TYKW | 45 | C | 2309.0 | 2310.1 | 5.0 | 10.0 | 2.0 | | |
| | 1415 | LEAR | 8 | S | 2309.5 | 2309.8 | .3 | 139 | | | |
| | 4995 | PALE | 8 | S | 2309.6 | 2310.0 | .9 | 13 | | | |
| | 1415 | PALE | 8 | S | 2309.6 | 2309.8 | .2 | 150 | | | |
| | 2695 | PENT | 1 | S | 2309.6 | 2310 | 1.5 | 9.0 | 4.5 | | |
| | 2695 | PALE | 8 | S | 2309.6 | 2310.0 | 1.5 | 13 | | | |
| | 9400 | TYKW | 5 | S | 2309.6 | 2310.1 | 1.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 2309.6 | 2310.1 | 1.4 | 14.0 | 5.0 | | |
| | 8800 | PALE | 8 | S | 2309.8 | 2310.0 | .7 | 08 | | | |
| | 2695 | LEAR | 8 | S | 2309.8 | 2310.0 | 1.0 | 10 | | | |
| | 4995 | LEAR | 4 | S/F | 2309.8 | 2310.0 | 2.2 | 10 | | | |
| | 9400 | TYKW | 29 | PBI | 2310.6 | | 15.0 | 2.5 | 1.5 | | |
| | 3750 | TYKW | 29 | PBI | 2311.0 | | 15.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 45 | C | 2316.5 | 2316.7 | .8 | 3.0 | .5 | | |
| | 1000 | TYKW | 8 | S | 2321.0 | 2321.2 | .4 | 13.0 | 2.0 | | |
| | 1000 | TYKW | 45 | C | 2322.4 | 2323.1 | .9 | 9.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 2332.0 | 2350 | 27.0 | 3.0 | 2.0 | | |
| | 9400 | TYKW | 5 | S | 2334.6 | 2337.5 | 20.0 | 2.0 | 1.5 | | |
| 08 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 12.0 | | |
| | 200 | GORK | 44 | NS | 0607.0E | | 349.0D | | 5.0 | | |
| | 100 | GORK | 44 | NS | 0609.0E | | 345.0D | | 5.0 | | |
| | 127 | TORN | 44 | NS | 0730.0E | 1326.3 | 470.0D | 190.0 | 6.0 | | V1,DISTURBED |
| | 260 | ONDR | 44 | NS | 0830.0E | | 336.0D | 61.0 | 3.0 | | |
| | 245 | SGMR | 43 | NS | 1154.0 | 1746.3 | 607.0D | 310 | | | |
| | 200 | HIRA | 44 | NS | 2132.0E | 0153 | 640.0D | 55.0 | 15.0 | | MR |
| | 245 | LEAR | 43 | NS | 2227.0 | 0302.6 | 742.0D | 660 | | | |
| | 410 | LEAR | 43 | NS | 2227.0 | 2323.3 | 742.0D | 170 | | | |
| | 3750 | TYKW | 21 | GRF | 0004.0 | 0044 | 170.0 | 8.0 | 4.0 | | |
| | 9400 | TYKW | 21 | GRF | 0010.0 | 0020 | 46.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0028.0 | 0028.4 | 2.0 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 45 | C | 0036.2 | 0036.5 | .4 | 13.0 | 2.0 | | |
| | 1000 | TYKW | 8 | S | 0042.0 | 0042.1 | .3 | 14.0 | 3.0 | | |
| | 1000 | TYKW | 8 | S | 0059.6 | 0059.8 | .4 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0103.0 | 0103.4 | 1.0 | 3.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0103.0 | 0103.4 | 2.0 | 16.0 | 3.0 | | |
| | 9400 | TYKW | 5 | S | 0109.0 | 0111.1 | 4.0 | 31.0 | 10.0 | | |
| | 3750 | TYKW | 5 | S | 0109.0 | 0111.1 | 4.0 | 30.0 | 7.0 | | |
| | 606 | MANI | 47 | GB | 0109.3 | 0139.6 | 33.3D | 410 | | | |
| | 606 | LEAR | 8 | S | 0110.0 | 0110.3 | 1.1 | 220 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 08 | 2000 | TYKW | 5 | S | 0110.0 | 0111.0 | 3.0 | 34.0 | 6.0 | | |
| | 1000 | TYKW | 45 | C | 0110.0 | 0111.0 | 1.5 | 58.0 | 5.0 | | |
| | 17000 | NOBE | 1 | S | 0110.0 | 0110.8 | 1.5 | 20.0 | | | L |
| | 2930 | VORO | 42 | SER | 0110.0 | 0120 | 15.0 | 84.0 | | | |
| | 4995 | MANI | 47 | GB | 0110.1 | 0111.3 | 31.7D | 71 | | | |
| | 500 | HIRA | 41 | F | 0110.1 | 0110.8 | 11.0 | 230.0 | | | WL |
| | 2695 | LEAR | 4 | S/F | 0110.1 | 0111.1 | 5.0 | 17 | | | |
| | 2695 | MANI | 47 | GB | 0110.1 | 0121.0 | 31.0D | 66 | | | |
| | 8800 | MANI | 47 | GB | 0110.1 | 0111.1 | 30.7 | 36 | | | |
| | 8800 | LEAR | 4 | S/F | 0110.1 | 0111.0 | 2.7 | 28 | | | |
| | 15400 | LEAR | 8 | S | 0110.3 | 0110.8 | 1.0 | 23 | | | |
| | 4995 | LEAR | 8 | S | 0110.5 | 0111.1 | 1.0 | 60 | | | |
| | 1415 | MANI | 47 | GB | 0110.5 | 0141.8 | 34.0D | 68 | | | |
| | 1415 | LEAR | 4 | S/F | 0110.6 | 0111.1 | 4.5 | 19 | | | |
| | 410 | LEAR | 47 | GB | 0110.6 | 0110.8 | .9 | 500 | | | |
| | 3750 | TYKW | 30 | PBI | 0113.0 | | 3.5 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 30 | PBI | 0113.0 | | 90.0 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 30 | PBI | 0113.0 | | 3.5 | 3.0 | 1.5 | | |
| | 410 | LEAR | 8 | S | 0113.3 | 0114.1 | 1.5 | 190 | | | |
| | 410 | PALE | 8 | S | 0113.8 | 0114.1 | .5 | 67 | | | |
| | 606 | LEAR | 8 | S | 0114.1 | 0115.0 | 1.0 | 70 | | | |
| | 1000 | TYKW | 45 | C | 0114.6 | 0115.0 | .6 | 330.0 | 60.0 | | |
| | 2000 | TYKW | 5 | S | 0114.7 | 0114.9 | .5 | 6.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 0114.8 | 0115.0 | .5 | 20.0 | 3.0 | | |
| | 1415 | LEAR | 8 | S | 0114.8 | 0114.8 | .3 | 17 | | | |
| | 2695 | LEAR | 8 | S | 0114.8 | 0114.8 | .3 | 13 | | | |
| | 3750 | TYKW | 5 | S | 0116.5 | 0117.1 | 1.5 | 19.0 | 7.0 | | |
| | 2000 | TYKW | 5 | S | 0116.5 | 0117.2 | 1.5 | 20.0 | 8.0 | | |
| | 9400 | TYKW | 5 | S | 0116.6 | 0117.1 | 1.5 | 9.0 | 2.5 | | |
| | 606 | LEAR | 8 | S | 0116.6 | 0117.1 | .7 | 180 | | | |
| | 1000 | TYKW | 45 | C | 0116.7 | 0117.1 | 1.5 | 215.0 | 30.0 | | |
| | 4995 | PALE | 8 | S | 0116.8 | 0117.1 | .3 | 21 | | | |
| | 606 | PALE | 8 | S | 0116.8 | 0117.1 | .3 | 95 | | | |
| | 1415 | PALE | 8 | S | 0116.8 | 0117.1 | .5 | 50 | | | |
| | 1415 | LEAR | 8 | S | 0116.8 | 0117.1 | .7 | 55 | | | |
| | 4995 | LEAR | 8 | S | 0116.8 | 0117.1 | .3 | 17 | | | |
| | 2695 | LEAR | 8 | S | 0116.8 | 0117.1 | .5 | 22 | | | |
| | 8800 | PALE | 8 | S | 0116.8 | 0117.0 | .3 | 19 | | | |
| | 3750 | TYKW | 30 | PBI | 0118.0 | | 9.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 30 | PBI | 0118.0 | | 9.0 | 3.0 | 1.5 | | |
| | 410 | LEAR | 4 | S/F | 0118.6 | 0119.6 | 2.2 | 85 | | | |
| | 3750 | TYKW | 5 | S | 0118.7 | 0119.1 | 1.3 | 6.0 | 2.5 | | |
| | 2000 | TYKW | 5 | S | 0118.7 | 0119.1 | .7 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 45 | C | 0119.5 | 0119.7 | .5 | 12.0 | 3.0 | | |
| | 3750 | TYKW | 5 | S | 0120.0 | 0120.7 | 5.0 | 32.0 | 7.0 | | |
| | 9400 | TYKW | 5 | S | 0120.0 | 0120.7 | 2.0 | 13.0 | 4.0 | | |
| | 2000 | TYKW | 5 | S | 0120.0 | 0120.8 | 5.0 | 36.0 | 8.0 | | |
| | 1000 | TYKW | 45 | C | 0120.0 | 0120.9 | 4.0 | 45.0 | 8.0 | | |
| | 4995 | PALE | 8 | S | 0120.1 | 0120.6 | .9 | 31 | | | |
| | 1415 | PALE | 8 | S | 0120.1 | 0120.1 | 1.0 | 50 | | | |
| | 8800 | PALE | 8 | S | 0120.3 | 0120.6 | .5 | 23 | | | |
| | 2695 | PALE | 8 | S | 0120.3 | 0120.6 | .7 | 28 | | | |
| | 9400 | TYKW | 21 | GRF | 0130.0 | 0150 | 30.0 | 6.0 | 3.0 | | |
| | 1000 | TYKW | 8 | S | 0130.8 | 0130.9 | .4 | 2.5 | .6 | | |
| | 3750 | TYKW | 28 | PRE | 0132.0 | 0137.7 | 7.0 | 2.5 | 1.0 | | |
| | 2000 | TYKW | 28 | PRE | 0132.0 | 0136.8 | 7.0 | 2.0 | .7 | | |
| | 1000 | TYKW | 45 | C | 0132.4 | 0132.5 | .6 | 26.0 | 6.0 | | |
| | 606 | LEAR | 8 | S | 0133.0 | 0133.1 | .3 | 50 | | | |
| | 208 | VORO | 46 | C | 0135.0 | | 5.0 | | | | |
| | 9400 | TYKW | 45 | C | 0135.5 | 0137.6 | 3.0 | 10.0 | 2.0 | | |
| | 500 | HIRA | 46 | C | 0136.0 | 0137 | 2.5 | 82.0 | 30.0 | | WR |
| | 1415 | PALE | 8 | S | 0136.3 | 0136.6 | .7 | 150 | | | 1 |
| | 410 | PALE | 8 | S | 0136.6 | 0137.3 | 1.5 | 150 | | | |
| | 410 | LEAR | 4 | S/F | 0136.8 | 0137.1 | 2.3 | 280 | | | |
| | 1000 | TYKW | 45 | C | 0137.0 | 0139.6U | 5.0 | 175.0D | 10.0D | | |
| | 2930 | VORO | 45 | C | 0137.6 | 0140 | 8.0 | 57.0 | | | |
| | 245 | PALE | 8 | S | 0137.1 | 0137.6 | 1.0 | 270 | | | |
| | 200 | HIRA | 42 | SER | 0137.2 | 0138.5 | 2.3 | 350.0 | | | 0 |
| | 245 | LEAR | 47 | GB | 0137.5 | 0139.0 | 1.6 | 890 | | | |
| | 8800 | LEAR | 4 | S/F | 0138.5 | 0140.6 | 4.3 | 25 | | | |
| | 245 | PALE | 47 | GB | 0138.6 | 0139.0 | .5 | 800 | | | |
| | 9400 | TYKW | 45 | C | 0139.0 | 0140.7 | 4.0 | 28.0 | 6.0 | | |
| | 2000 | TYKW | 45 | C | 0139.0 | 0139.8 | 4.0 | 39.0 | 6.0 | | |
| | 3750 | TYKW | 45 | C | 0139.0 | 0140.7 | 4.0 | 64.0 | 10.0 | | |
| | 606 | LEAR | 47 | GB | 0139.3 | 0139.6 | .7 | 2000 | | | |
| | 1415 | LEAR | 4 | S/F | 0139.3 | 0141.1 | 5.5 | 27 | | | |
| | 4995 | LEAR | 4 | S/F | 0139.3 | 0140.6 | 3.3 | 16 | | | |
| | 606 | PALE | 47 | GB | 0139.3 | 0139.6 | .7 | 970 | | | |
| | 8800 | PALE | 8 | S | 0139.5 | 0140.6 | 1.8 | 32 | | | |
| | 17000 | NOBE | 20 | GRF | 0139.5 | 0141.3 | 26.0 | 20.0 | | | 0 |
| | 2695 | LEAR | 8 | S | 0139.6 | 0139.8 | 1.2 | 37 | | | |
| | 15400 | PALE | 8 | S | 0139.6 | 0140.6 | 1.7 | 26 | | | |
| | 15400 | LEAR | 8 | S | 0139.6 | 0140.6 | 1.7 | 23 | | | |
| | 4995 | PALE | 8 | S | 0139.6 | 0139.8 | .2 | 19 | | | |
| | 2000 | TYKW | 30 | PBI | 0143.0 | | 65.0 | 2.0 | 1.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 08 | 3750 | TYKW | 30 | PBI | 0143.0 | | 55.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 20 | GRF | 0145.0 | 0151 | 30.0 | 4.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 0146.0 | 0147.2 | 20.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0158.5 | 0159.1 | 1.5 | 3.0 | 1.5 | | |
| | 2930 | VORO | 3 | S | 0325.0 | 0328 | 10.0 | 74.0 | | | |
| | 9400 | TYKW | 45 | C | 0326.0 | 0329.4 | 5.0 | 98.0 | 20.0 | | |
| | 3750 | TYKW | 45 | C | 0326.0 | 0329.4 | 6.0 | 57.0 | 15.0 | | |
| | 1000 | TYKW | 45 | C | 0326.0 | 0327.1 | 5.0 | 78.0 | 4.0 | | |
| | 2000 | TYKW | 45 | C | 0326.0 | 0329.5 | 6.0 | 40.0 | 10.0 | | |
| | 5730 | IRKU | | | 0326.2 | 0329.4 | | 63.0 | | | L |
| | 5730 | IRKU | 21 | GRF | 0326.2 | 0327.4 | 5.0 | 31.0 | 21.0 | | R |
| | 17000 | NOBE | 7 | C | 0326.3 | 0329.4 | 4.0 | 48.0 | | | Ø |
| | 500 | HIRA | 46 | C | 0326.5 | 0327.3 | 2.0 | 54.0 | 20.0 | | Ø |
| | 15400 | LEAR | 4 | S/F | 0326.8 | 0329.3 | 3.0 | 66 | | | |
| | 4995 | LEAR | 4 | S/F | 0326.6 | 0329.3 | 3.3 | 54 | | | |
| | 4995 | PALE | 47 | GB | 0327.0 | 0329.3 | 3.0 | 47 | | | |
| | 410 | LEAR | 8 | S | 0327.0 | 0327.6 | 2.0 | 63 | | | |
| | 606 | LEAR | 4 | S/F | 0327.0 | 0327.3 | 2.6 | 96 | | | |
| | 15400 | PALE | 4 | S/F | 0327.0 | 0329.3 | 3.0 | 51 | | | |
| | 8800 | LEAR | 4 | S/F | 0327.0 | 0329.3 | 2.8 | 93 | | | |
| | 8800 | PALE | 47 | GB | 0327.0 | 0329.3 | 3.0 | 93 | | | |
| | 2695 | PALE | 4 | S/F | 0327.1 | 0329.3 | 3.4 | 58 | | | |
| | 2695 | LEAR | 8 | S | 0328.0 | 0329.3 | 1.3 | 56 | | | |
| | 35000 | NAGO | 20 | GRF | 0329.0 | 0333 | 51.0 | 17.0 | | | |
| | 1415 | LEAR | 8 | S | 0329.3 | 0329.3 | .2 | 36 | | | |
| | 17000 | NOBE | 29 | PBI | 0330.3 | 0330.3 | 30.0 | 10.0 | | | Ø |
| | 9400 | TYKW | 30 | PBI | 0331.0 | | 70.0 | 9.0 | 4.0 | | |
| | 2000 | TYKW | 30 | PBI | 0332.0 | | 200.0 | 6.0 | 3.0 | | |
| | 3750 | TYKW | 30 | PBI | 0332.0 | | 200.0 | 6.0 | 4.0 | | |
| | 1000 | TYKW | 5 | S | 0344.1 | 0344.2 | .5 | 4.5 | 1.0 | | |
| | 606 | LEAR | 4 | S/F | 0421.8 | 0423.0 | 2.2 | 63 | | | |
| | 1415 | LEAR | 4 | S/F | 0421.8 | 0422.3 | 2.3 | 35 | | | |
| | 1000 | TYKW | 45 | C | 0422.0 | 0422.4 | 2.5 | 72.0 | 4.0 | | |
| | 2000 | TYKW | 45 | C | 0422.0 | 0423.1 | 4.0 | 30.0 | 5.0 | | |
| | 3750 | TYKW | 45 | C | 0422.0 | 0423.1 | 3.0 | 50.0 | 10.0 | | |
| | 9400 | TYKW | 45 | C | 0422.0 | 0423.1 | 4.0 | 17.0 | 3.0 | | |
| | 4995 | LEAR | 8 | S | 0422.8 | 0423.0 | .3 | 33 | | | |
| | 2695 | LEAR | 8 | S | 0422.8 | 0423.0 | .3 | 43 | | | |
| | 8800 | LEAR | 8 | S | 0422.8 | 0423.0 | .3 | 29 | | | |
| | 2000 | TYKW | 21 | GRF | 0445.0 | 0524 | 95.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 21 | GRF | 0445.0 | 0524 | 95.0 | 5.0 | 2.5 | | |
| | 3750 | TYKW | 5 | S | 0511.6 | 0512 | 2.0 | 1.5 | .5 | | |
| | 1000 | TYKW | 45 | C | 0511.6 | 0512.3 | 1.5 | 12.0 | 2.0 | | |
| | 3750 | TYKW | 8 | S | 0514.5 | 0514.6 | .2 | 9.0 | 2.0 | | |
| | 1000 | TYKW | 8 | S | 0514.5 | 0514.6 | .3 | 13.0 | 3.0 | | |
| | 3750 | TYKW | 5 | S | 0548.0 | 0549.4 | 3.5 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 0548.0 | 0549.3 | 3.0 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0549.0 | 0549.5 | 2.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 45 | C | 0557.0 | 0602.0 | 8.0D | 18.0 | 6.0D | | |
| | 3750 | TYKW | 45 | C | 0557.0 | 0603 U | 10.0 | 22.0D | 4.0D | | |
| | 1000 | TYKW | 45 | C | 0557.0 | 0557.6U | 9.0 | 12.0 | 2.0D | | |
| | 9400 | TYKW | 45 | C | 0557.0 | 0603.0 | 7.0D | 31.0 | 8.0D | | |
| | 6100 | KISV | | | 0557.0 | 0559 | | 7.0 | | | |
| | 6100 | KISV | | | 0557.0 | 0557.5 | | 7.0 | | | |
| | 6100 | KISV | 45 | C | 0557.0 | 0603 | 9.0 | 24.0 | | | |
| | 100 | HIRA | 42 | SER | 0558.2 | 0558.3 | 45.0 | 2700.0 | | | WL |
| | 2695 | ATHN | 4 | S/F | 0600.8 | 0602.6 | 3.5D | 27 | | | |
| | 4995 | ATHN | 4 | S/F | 0600.8 | 0602.8 | 5.5D | 21 | | | |
| | 8800 | ATHN | 4 | S/F | 0601.0 | 0602.3 | 5.0 | 33 | | | |
| | 1415 | ATHN | 4 | S/F | 0601.1 | 0601.8 | 3.2D | 15 | | | |
| | 17000 | NOBE | 1 | S | 0601.2 | 0603.0 | 3.0 | 15.0 | | | Ø |
| | 4995 | LEAR | 8 | S | 0601.3 | 0602.6 | 2.0 | 29 | | | |
| | 8800 | LEAR | 4 | S/F | 0601.3 | 0602.8 | 2.2 | 35 | | | |
| | 2695 | LEAR | 8 | S | 0601.6 | 0602.8 | 1.5 | 11 | | | |
| | 1415 | LEAR | 8 | S | 0601.6 | 0601.8 | .4 | 13 | | | |
| | 2950 | GORK | 23 | GRF | 0601.7E | 0642.9 | 212.0D | 5.7 | | | |
| | 2950 | GORK | 2 | S/F | 0601.7E | 0602.1 | 2.0D | 15.0 | | | |
| | 15400 | LEAR | 8 | S | 0602.1 | 0603.0 | 1.0 | 19 | | | |
| | 245 | LEAR | 8 | S | 0602.1 | 0602.1 | .2 | 43 | | | |
| | 100 | GORK | | | 0620.6 | 0624.7 | | 230.0D | | | |
| | 100 | GORK | | | 0620.6 | 0630.0 | | 230.0D | | | |
| | 100 | GORK | | | 0620.6 | 0627.3 | | 230.0D | | | |
| | 100 | GORK | 41 | F | 0620.6 | 0620.7 | 10.5 | 230.0D | | | |
| | 6100 | KISV | 27 | RF | 0625.0 | 0631 | 37.0 | 5.0 | | | |
| | 100 | GORK | 4 | S/F | 0641.4 | 0642.5 | 1.8 | 240.0D | | | |
| | 3750 | TYKW | 5 | S | 0641.5 | 0642.9 | 3.5 | 5.0 | 1.5 | | |
| | 2000 | TYKW | 5 | S | 0642.0 | 0642.7 | 2.0 | 3.0 | 1.0 | | |
| | 6100 | KISV | 1 | S | 0642.0 | 0643 | 3.0 | 3.0 | | | |
| | 1000 | TYKW | 45 | C | 0642.5 | 0642.6 | .5 | 3.5 | 1.0 | | |
| | 1000 | TYKW | 8 | S | 0648.4 | 0648.6 | .4 | 15.0 | 5.0 | | |
| | 1000 | TYKW | 8 | S | 0649.3 | 0649.4 | .3 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 45 | C | 0652.6 | 0652.9 | .7 | 12.0 | 2.0 | | |
| | 2950 | GORK | 3 | S | 0655.7 | 0656.5 | 2.1 | 41.0 | 20.0 | | |
| | 4995 | ATHN | 4 | S/F | 0655.8 | 0656.3 | 7.5D | 56 | | | |
| | 1415 | ATHN | 4 | S/F | 0655.8 | 0656.6 | 2.7D | 18 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 08 | 8800 | ATHN | 4 | S/F | 0655.8 | 0656.3 | 4.2 | 54 | | | |
| | 950 | GORK | 1 | S | 0656.0 | 0656.3 | 1.5 | 5.0 | 2.5 | | |
| | 500 | HIRA | 8 | S | 0656.0 | 0656.1 | .3 | 86.0 | 50.0 | | 0 |
| | 9100 | GORK | 3 | S | 0656.0 | 0656.4 | .9 | 60.0 | | | |
| | 650 | GORK | 4 | S/F | 0656.0 | 0656.2 | 2.3 | 55.0 | 27.0 | | |
| | 3100 | CRIM | 3 | S | 0656.0 | 0656.5 | 2.0 | 54.0 | 18.0 | | |
| | 35000 | NAGO | 5 | S | 0656.0 | 0656 | 1.0 | 28.0 | | | |
| | 9400 | TYKW | 5 | S | 0656.0 | 0656.3 | 4.0 | 60.0 | 8.0 | | |
| | 2000 | TYKW | 5 | S | 0656.0 | 0656.4 | 3.0 | 44.0 | 12.0 | | |
| | 3750 | TYKW | 5 | S | 0656.0 | 0656.4 | 3.0 | 58.0 | 12.0 | | |
| | 1000 | TYKW | 45 | C | 0656.0 | 0657.4 | 2.5 | 17.0 | 4.0 | | |
| | 17000 | NOBE | 1 | S | 0656.1 | 0656.2 | 1.0 | 78.0 | | | L |
| | 2695 | LEAR | 8 | S | 0656.1 | 0656.3 | .7 | 51 | | | |
| | 8800 | LEAR | 8 | S | 0656.1 | 0656.3 | .7 | 67 | | | |
| | 2695 | ATHN | 4 | S/F | 0656.1 | 0656.3 | 7.2D | 55 | | | |
| | 606 | LEAR | 47 | GB | 0656.1 | 0656.1 | .4 | 600 | | | |
| | 1415 | LEAR | 8 | S | 0656.1 | 0656.3 | .5 | 21 | | | |
| | 15400 | LEAR | 8 | S | 0656.1 | 0656.1 | .7 | 119 | | | |
| | 4995 | LEAR | 8 | S | 0656.1 | 0656.3 | .7 | 59 | | | |
| | 5730 | IRKU | 2 | S | 0656.2 | 0656.5 | 1.5 | 49.0 | 15.0 | | R |
| | 1415 | MANI | 4 | S/F | 0656.8 | 0657.8 | 4.8D | 18 | | | |
| | 9100 | GORK | 29 | PBI | 0656.9 | 0656.9 | 48.0 | 15.0 | | | |
| | 606 | MANI | 4 | S/F | 0657.1 | 0657.8 | 2.9D | 180 | | | |
| | 4995 | MANI | 4 | S/F | 0657.1 | 0657.8 | 4.5D | 63 | | | |
| | 4995 | MANI | 4 | S/F | 0657.1 | 0657.8 | 4.5D | 63 | | | |
| | 2695 | MANI | 4 | S/F | 0657.1 | 0657.8 | 4.5D | 52 | | | |
| | 8800 | MANI | 4 | S/F | 0657.3 | 0657.8 | 4.3 | 79 | | | |
| | 2000 | TYKW | 29 | PBI | 0659.0 | | 20.0 | 2.0 | 1.0 | | |
| | 6100 | KISV | 8 | S | 0702.0 | 0702.4 | 3.0 | 34.0 | | | |
| | 3100 | CRIM | 26 | FAL | 0717.0 | 0800.0 | | 5.0 | | | |
| | 2000 | TYKW | 5 | S | 0737.3 | 0737.6 | 1.0 | 23.0 | 3.0 | | |
| | 3750 | TYKW | 5 | S | 0737.3 | 0737.6 | 1.0 | 3.0 | 1.0 | | |
| | 100 | GORK | | | 0757.3 | 0759.7 | | 200.0D | | | |
| | 100 | GORK | 41 | F | 0757.3 | 0757.8U | 3.0 | 200.0D | | | |
| | 6100 | KISV | 1 | S | 0758.0 | 0758.2 | 1.0 | 2.0 | | | |
| | 410 | LEAR | 8 | S | 0801.5 | 0802.3 | 1.5 | 35 | | | |
| | 245 | LEAR | 8 | S | 0801.8 | 0801.8 | .2 | 52 | | | |
| | 606 | LEAR | 8 | S | 0802.3 | 0802.5 | .3 | 18 | | | |
| | 606 | LEAR | 47 | GB | 0805.0 | 0806.3 | 1.6 | 840 | | | |
| | 6100 | KISV | 1 | S | 0806.0 | 0806.5 | 7.0 | 2.0 | | | |
| | 430 | KRAK | 42 | SER | 0811.5 | 0939.0 | 240.0 | 130.0 | | | |
| | 100 | GORK | 4 | S/F | 0816.4 | 0817.3 | 2.3 | 200.0D | | | |
| | 2950 | GORK | 1 | S | 0817.0 | 0817.8 | 1.6 | 3.0 | 1.5 | | |
| | 6100 | KISV | 1 | S | 0817.0 | 0817.8 | 2.0 | 2.0 | | | |
| | 650 | GORK | | | 0828.5 | 0842.7U | | 60.0D | | | |
| | 650 | GORK | 41 | F | 0828.5 | 0837.7U | 15.8 | 60.0D | | | |
| | 5200 | BERN | 21 | GRF | 0830.5 | 0837.6 | 30.0 | 18.0 | | | |
| | 8400 | BERN | 21 | GRF | 0831.6 | 0849.0 | 30.0 | 21.0 | | | |
| | 3200 | BERN | 21 | GRF | 0833.0 | 0837.5 | 25.0 | .0 | | | ONLY PAPER REC |
| | 950 | GORK | 2 | S/F | 0834.6 | 0837.6 | 4.1 | 40.0 | | | |
| | 808 | ONDR | 42 | SER | 0835.5 | 0837 | 2.5 | 150.0 | | | |
| | 810 | KRAK | 42 | SER | 0836.0 | 0837.7 | 7.0 | 1000.0D | | | |
| | 2950 | GORK | 2 | S/F | 0836.7 | 0837.8 | 2.0 | 16.0 | | | |
| | 2650 | DWIN | 1 | S | 0837.0 | 0837.5 | 1.0 | 20.0 | 10.0 | | |
| | 6100 | KISV | 45 | C | 0837.0 | 0837.7 | 3.0 | 7.0 | | | |
| | 6100 | KISV | | | 0837.0 | 0838.5 | | 5.0 | | | |
| | 9100 | GORK | 45 | C | 0837.4 | 0837.7 | 2.3 | 12.0 | | | |
| | 9100 | GORK | | | 0837.4 | 0838.4 | | 10.0 | | | |
| | 536 | ONDR | 42 | SER | 0837.5 | 0842.5 | 6.0 | 83.0 | | | |
| | 4995 | LEAR | 8 | S | 0837.5 | 0837.6 | .5 | 11 | | | |
| | 606 | LEAR | 47 | GB | 0837.5 | 0837.6 | .3 | 9500 | | | |
| | 2695 | LEAR | 8 | S | 0837.5 | 0837.6 | .5 | 15 | | | |
| | 8800 | LEAR | 8 | S | 0837.6 | 0837.6 | .2 | 10 | | | |
| | 3100 | CRIM | 1 | S | 0837.6 | 0837.8 | 1.0 | 20.0 | 6.0 | | |
| | 2950 | GORK | 1 | S | 0841.3 | 0841.7 | .7 | 6.7 | 3.0 | | |
| | 606 | LEAR | 8 | S | 0842.5 | 0842.6 | .6 | 260 | | | |
| | 9100 | GORK | 1 | S | 0847.9 | 0849.1 | 4.6 | 14.0 | | | |
| | 6100 | KISV | 4 | S/F | 0848.0 | 0849.2 | 4.0 | 7.0 | | | |
| | 127 | TORN | 7 | C | 0904.1 | 0904.7 | 1.6 | 450.0 | 120.0 | | |
| | 6100 | KISV | 1 | S | 0918.0 | 0920.2 | 3.0 | 2.0 | | | |
| | 650 | GORK | 41 | F | 0930.0 | 0939.1 | 14.4 | 70.0D | | | |
| | 650 | GORK | | | 0930.6 | 0941.0 | | 70.0D | | | |
| | 536 | ONDR | 42 | SER | 0935.8 | 0940.8 | 6.0 | 70.0 | | | |
| | 2650 | DWIN | 1 | S | 0938.0 | 0939 | 2.0 | 50.0 | 20.0 | | |
| | 810 | KRAK | 42 | SER | 0938.5 | 0938.7 | 5.0 | 140.0 | | | |
| | 3200 | BERN | 3 | S | 0938.7 | 0939.0 | 6.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 3 | S | 0938.7 | 0939.0 | 6.0 | 26.0 | | | ONLY PAPER REC |
| | 4995 | LEAR | 8 | S | 0938.8 | 0939.0 | .7 | 20 | | | |
| | 1415 | LEAR | 8 | S | 0938.8 | 0939.0 | 1.0 | 55 | | | |
| | 808 | ONDR | 42 | SER | 0938.8 | 0938.8 | 3.6 | 35.0 | | | |
| | 950 | GORK | 46 | C | 0939.0 | 0939.2 | 4.1 | 53.0 | | | |
| | 930 | BORD | 41 | F | 0939.0 | 0939.1 | 4.0 | 156.0 | 6.0 | | |
| | 3100 | CRIM | 3 | S | 0939.0 | 0939.3 | 1.0 | 49.0 | 16.0 | | |
| | 950 | GORK | | | 0939.0 | 0942.4 | | 55.0 | | | |
| | 9100 | GORK | 1 | S | 0939.0 | 0939.2 | .7 | 9.0 | 4.5 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 08 | 2950 | GORK | 4 | S/F | 0939.0 | 0939.3 | 4.9 | 38.0 | | | |
| | 606 | LEAR | 47 | GB | 0939.0 | 0939.1 | 1.8 | 3700 | | | |
| | 8800 | LEAR | 8 | S | 0939.0 | 0939.1 | .3 | 10 | | | |
| | 2695 | LEAR | 8 | S | 0939.0 | 0939.1 | .3 | 44 | | | |
| | 6100 | KISV | 8 | S | 0939.1 | 0939.3 | 1.0 | 10.0 | | | |
| | 200 | GORK | 4 | S/F | 0942.1 | 0943.4 | 2.3 | 65.0D | | | |
| | 100 | GORK | | | 0942.3 | 0943.1 | | 2350.0 | | | |
| | 100 | GORK | 41 | F | 0942.3 | 0942.4 | 1.0 | 270.0 | | | |
| | 29 | UPIC | 2 | S/F | 0942.7 | 0943 | 1.1 | | | | |
| | 6100 | KISV | 4 | S/F | 1002.5 | 1004.5 | 5.0 | 6.0 | | | |
| | 9100 | GORK | 1 | S | 1002.7 | 1004.4 | 3.6 | 10.0 | | | |
| | 29 | UPIC | 45 | C | 1004.0 | 1004.1 | 1.3 | | | | |
| | 100 | GORK | 46 | C | 1004.0 | 1004.3 | 1.5 | 270.0D | | | |
| | 100 | GORK | | | 1004.0 | 1005.1 | | 270.0D | | | |
| | 3200 | BERN | 3 | S | 1037.7 | 1041.1 | 10.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 3 | S | 1037.8 | 1041.2 | 10.0 | 14.0 | | | |
| | 536 | ONDR | 4 | S/F | 1040.0 | 1040.8 | 1.0 | 25.0 | | | |
| | 3100 | CRIM | 1 | S | 1041.0 | 1041.2 | 1.0 | 7.0 | 2.0 | | |
| | 6100 | KISV | 3 | S | 1041.0 | 1041.5 | 2.0 | 7.0 | | | |
| | 9100 | GORK | 22 | GRF | 1041.0 | 1041.3 | 63.0E | 9.0 | | | |
| | 2950 | GORK | 20 | GRF | 1041.6 | 1041.4 | 8.0 | 7.6 | | | |
| | 29 | UPIC | 42 | SER | 1104.8 | 1159.6 | 96.4 | | | | |
| | 100 | GORK | 8 | S | 1115.7 | 1115.8 | .6 | 290.0D | | | |
| | 3200 | BERN | 21 | GRF | 1135.5 | 1144.3 | 15.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 21 | GRF | 1135.5 | 1144.3 | 15.0 | 9.0 | | | ONLY PAPER REC |
| | 950 | GORK | 2 | S/F | 1138.0 | 1139.7 | 2.5 | 6.0 | | | |
| | 650 | GORK | 41 | F | 1138.4 | 1143.5 | | 320.0 | | | |
| | 650 | GORK | 41 | F | 1138.4 | 1139.1 | 6.6 | 250.0 | | | |
| | 930 | BORD | 42 | SER | 1138.4 | 1144.5 | 7.0 | 66.0 | 2.0 | | |
| | 810 | KRAK | 42 | SER | 1138.7 | 1144.5 | 7.0 | 110.0 | | | |
| | 536 | ONDR | 46 | C | 1139.0 | | 7.0 | 70.0D | 3.0 | | |
| | 100 | GORK | | | 1139.8 | 1146.3 | | 290.0D | | | |
| | 100 | GORK | 41 | F | 1139.8 | 1140.3 | 6.8 | 290.0D | | | |
| | 2950 | GORK | 1 | S | 1140.2 | 1140.4 | .6 | 3.0 | 1.5 | | |
| | 808 | ONDR | 45 | C | 1143.0 | 1144 | 1.0 | 20.0 | | | |
| | 950 | GORK | 2 | S/F | 1143.4 | 1144.0 | 2.0 | 24.0 | | | |
| | 2950 | GORK | 2 | S/F | 1144.4 | 1144.6 | 1.3 | 5.7 | | | |
| | 11800 | BERN | 20 | GRF | 1342.0 | 1349.5 | 36.0 | 21.0 | | | |
| | 19600 | BERN | 20 | GRF | 1346.0 | 1349.6 | 18.0D | 31.0 | | | |
| | 3200 | BERN | 20 | GRF | 1346.0 | 1349.5 | 40.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 20 | GRF | 1346.0 | 1349.6 | 40.0 | 7.0 | | | |
| | 8400 | BERN | 20 | GRF | 1346.0 | 1349.5 | 40.0 | 14.0 | | | |
| | 2800 | OTTA | 1 | S | 1349.0 | 1349.5 | 1.0 | 9.6 | 4.5 | | |
| | 2800 | OTTA | 21 | GRF | 1510.0 | 1530 | 55.0 | 3.8 | 1.9 | | |
| | 2800 | OTTA | 8 | S | 1523.2 | 1523.4 | .6 | 5.8 | 2.9 | | |
| | 2800 | OTTA | 1 | S | 1539.8 | 1540.5 | 1.5 | 2.2 | 1.1 | | |
| | 2800 | OTTA | 1 | S | 1614.0 | 1614.8 | 2.0 | 4.6 | 2.0 | | |
| | 930 | BORD | 41 | F | 1648.7 | 1648.8 | .3 | 135.0 | 2.0 | | |
| | 2800 | OTTA | 21 | GRF | 1805.0 | 1807 | 60.0 | 10.4 | 4.8 | | |
| | 4995 | SGMR | 4 | S/F | 1805.0 | 1808.8 | 13.0 | 11 | | | |
| | 9400 | HUAN | | S | 1805.5 | 1811.7 | 68.9 | 11.9 | 7.2 | | 0 |
| | 2695 | SGMR | 4 | S/F | 1806.0 | 1809.0 | 9.5D | 09 | | | |
| | 2800 | OTTA | 4 | S/F | 1824.0 | 1831.4 | 13.0 | 31.0 | | | |
| | 2800 | OTTA | 4 | S/F | 1848.5 | 1851.7 | 3.5 | 34.0 | | | |
| | 9400 | HUAN | | S | 2027.2 | 2028.1 | 1.9 | 13.4 | 7.1 | | R |
| | 15400 | SGMR | 8 | S | 2027.8 | 2028.1 | .5D | 13 | | | |
| | 4995 | SGMR | 8 | S | 2028.0 | 2028.1 | .5D | 11 | | | |
| | 2695 | SGMR | 8 | S | 2028.0 | 2028.3 | .5 | 05 | | | |
| | 8800 | SGMR | 8 | S | 2028.1 | 2028.1 | .4D | 11 | | | |
| | 2800 | OTTA | 1 | S | 2038.0 | 2038.4 | 2.0 | 5.4 | 1.8 | | |
| | 410 | PALE | 47 | GB | 2140.0 | 2140.6 | .6 | 1199 | | | |
| | 410 | LEAR | 8 | S | 2323.1 | 2323.1 | .2 | 170 | | | |
| | 410 | PALE | 8 | S | 2323.1 | 2323.3 | .4 | 45 | | | |
| | 9400 | TYKW | 5 | S | 2338.5 | 2339.0 | 1.5 | 4.0 | 1.0 | | |
| 09 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 19.0 | | |
| | 100 | HIRA | 43 | NS | 0115.6 | 0139.0 | 80.0 | 150.0 | 45.0 | | SR |
| | 200 | GORK | 44 | NS | 0558.0E | | 393.0D | | 15.0 | | |
| | 100 | GORK | 44 | NS | 0600.0E | | 390.0E | | 5.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | | 150.0D | | 2.0 | | V0 |
| | 29 | UPIC | 43 | NS | 0721.8 | 1327.6 | 429.4 | | | | |
| | 260 | ONDR | 44 | NS | 0820.0E | | 377.0D | 74.0 | 2.0 | | |
| | 245 | SGMR | 43 | NS | 1153.0 | 1306.5 | 392.0D | 340 | | | |
| | 208 | HIRA | 44 | NS | 2131.0E | 2310 | 640.0D | 30.0 | 20.0 | | WR |
| | 100 | HIRA | 44 | NS | 2131.6E | 2304 | 640.0D | 60.0 | 5.0 | | MR |
| | 245 | LEAR | 43 | NS | 2227.0 | 1021.0 | 742.0D | 160 | | | |
| | 100 | HIRA | 46 | C | 0030.4 | 0030.7 | 1.3 | 790.0 | 150.0 | | WL |
| | 9400 | TYKW | 20 | GRF | 0110.0 | 0125 | 50.0 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0236.0 | 0237.5 | 20.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 0236.5 | 0237.5 | 15.0 | 2.0 | .5 | | |
| | 100 | HIRA | 41 | F | 0301.0U | 0302.5 | 3.0U | 45000.0 | | | WL |
| | 2000 | TYKW | 21 | GRF | 0332.0 | 0410 | 115.0 | 7.0 | 3.5 | | |
| | 9400 | TYKW | 21 | GRF | 0345.0 | 0410 | 95.0 | 7.0 | 3.0 | | |
| | 3750 | TYKW | 21 | GRF | 0345.0 | 0410 | 100.0 | 10.0 | 5.0 | | |
| | 9400 | TYKW | 5 | S | 0508.8 | 0509.1 | 1.0 | 5.0 | 1.5 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 09 | 500 | HIRA | 8 | S | 0508.9 | 0508.9 | .3 | 1300.0 | | | WR |
| | 2000 | TYKW | 5 | S | 0509.0 | 0509.2 | 1.5 | 4.5 | 1.5 | | |
| | 1000 | TYKW | 5 | S | 0509.0 | 0509.2 | 1.0 | 3.5 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0509.0 | 0509.2 | 1.0 | 4.0 | 1.5 | | |
| | 410 | LEAR | 8 | S | 0509.0 | 0509.1 | .3 | 300 | | | |
| | 606 | LEAR | 8 | S | 0509.0 | 0509.1 | .3 | 100 | | | |
| | 2000 | TYKW | 28 | PRE | 0535.0 | 0645 | 70.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 28 | PRE | 0535.0 | 0545 | 67.0 | 3.0 | 2.0 | | |
| | 3100 | CRIM | 3 | S | 0545.0 | 0549.5 | 7.0 | 37.0 | 12.0 | | |
| | 3100 | CRIM | 29 | PBI | 0552.0 | 0552.0 | 44.0 | 26.0 | 8.0 | | |
| | 500 | HIRA | 41 | F | 0552.4 | 0552.6 | 1.3 | 1200.0 | | | WR |
| | 410 | LEAR | 8 | S | 0552.8 | 0552.8 | .2 | 30 | | | |
| | 4995 | LEAR | 8 | S | 0553.0 | 0553.1 | .3 | 03 | | | |
| | 8800 | LEAR | 8 | S | 0553.0 | 0553.3 | .6 | 11 | | | |
| | 1000 | TYKW | 5 | S | 0553.0 | 0553.5 | 2.0 | 2.5 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0553.0 | 0553.5 | 2.0 | 3.0 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0553.0 | 0553.4 | 3.0 | 5.0 | 1.5 | | |
| | 9400 | TYKW | 45 | C | 0553.0 | 0553.4 | 1.5 | 10.0 | 3.5 | | |
| | 2695 | LEAR | 8 | S | 0553.1 | 0553.5 | .7 | 05 | | | |
| | 606 | LEAR | 8 | S | 0553.1 | 0553.3 | .2 | 82 | | | |
| | 1415 | LEAR | 8 | S | 0553.1 | 0553.5 | 1.4 | 05 | | | |
| | 3750 | TYKW | 45 | C | 0642.0 | 0649.6 | 18.0 | 39.0 | 12.0 | | |
| | 9400 | TYKW | 45 | C | 0642.0 | 0649.7 | 18.0 | 29.0 | 10.0 | | |
| | 6100 | KISV | 45 | C | 0642.6 | 0649.9 | 7.0 | 37.0 | | | |
| | 9100 | GORK | 21 | GRF | 0642.5 | 0651.0 | 40.0 | 17.0 | | | |
| | 5730 | IRKU | | | 0645.0 | 0649.7 | | 47.0 | | | R |
| | 5730 | IRKU | 21 | GRF | 0645.0 | 0648.7 | 10.0 | 41.0 | 16.0 | | R |
| | 2000 | TYKW | 45 | C | 0645.0 | 0649.5 | 15.0 | 19.0 | 7.0 | | |
| | 2950 | GORK | 3 | S | 0646.6 | 0649.3 | 4.0 | 22.0 | | | |
| | 4995 | LEAR | 4 | S/F | 0647.6 | 0649.6 | 3.7 | 43 | | | |
| | 4995 | ATHN | 4 | S/F | 0647.6 | 0649.6 | 7.4D | 35 | | | |
| | 8800 | ATHN | 4 | S/F | 0647.6 | 0649.6 | 7.4 | 36 | | | |
| | 8800 | LEAR | 4 | S/F | 0647.6 | 0649.6 | 4.9 | 42 | | | |
| | 2695 | ATHN | 4 | S/F | 0647.6 | 0649.6 | 7.2D | 19 | | | |
| | 2695 | LEAR | 4 | S/F | 0647.8 | 0649.6 | 3.5 | 31 | | | |
| | 9100 | GORK | 1 | S | 0647.8 | 0649.6 | 3.1 | 16.0 | 8.0 | | |
| | 2950 | GORK | 29 | PBI | 0649.0 | 0649.3 | 43.0 | 11.0 | | | |
| | 15400 | LEAR | 8 | S | 0649.1 | 0649.6 | 1.2 | 22 | | | |
| | 6100 | KISV | 29 | PBI | 0653.0 | 0653 | 43.0 | 14.0 | | | |
| | 3750 | TYKW | 29 | PBI | 0700.0 | | 40.0 | 11.0 | 5.0 | | |
| | 9400 | TYKW | 30 | PBI | 0700.0 | | 50.0 | 13.0 | 6.0 | | |
| | 2000 | TYKW | 29 | PBI | 0700.0 | | 40.0 | 7.0 | 3.5 | | |
| | 100 | HIRA | 42 | SER | 0718.3 | 0722.5 | 8.0 | 5000.0 | | | WL |
| | 9400 | TYKW | 5 | S | 0720.0 | 0720.4 | 1.0 | 7.0 | 2.5 | | |
| | 204 | IZMI | 4 | S/F | 0721.9 | 0722.5 | 1.1 | 350.0 | 220.0 | | |
| | 606 | LEAR | 8 | S | 0724.3 | 0724.5 | .3 | 20 | | | |
| | 410 | LEAR | 8 | S | 0724.3 | 0724.5 | .3 | 25 | | | |
| | 245 | LEAR | 8 | S | 0724.3 | 0724.6 | .5 | 40 | | | |
| | 606 | LEAR | 8 | S | 0750.3 | 0750.5 | .3 | 100 | | | |
| | 3100 | CRIM | 26 | FAL | 0812.0 | 0848.0 | | 5.0 | | | |
| | 6100 | KISV | 3 | S | 0836.6 | 0837 | 2.0 | 3.0 | | | |
| | 430 | KRAK | 8 | S | 0836.3 | 0836.8 | .7 | 140.0 | | | |
| | 3200 | BERN | 20 | GRF | 0958.7 | 1001.0 | 35.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 20 | GRF | 0958.7 | 1001.0 | 35.0 | 25.0 | | | ONLY PAPER REC |
| | 3100 | CRIM | 1 | S | 1000.5 | 1003.0 | 6.0 | 11.0 | 4.0 | | |
| | 2950 | GORK | 45 | C | 1000.7 | 1001.0 | 6.1 | 6.4 | | | |
| | 2950 | GORK | | | 1000.7 | 1003.0 | | 5.5 | | | |
| | 6100 | KISV | 45 | C | 1001.0 | 1001.2 | 8.0 | 11.0 | | | |
| | 4995 | ATHN | 8 | S | 1001.6 | 1002.1U | .5D | 13.U | | | |
| | 8800 | ATHN | 8 | S | 1001.6 | 1001.8 | .5 | 06 | | | |
| | 204 | IZMI | 41 | F | 1027.5 | 1029.1 | 3.3 | 200.0 | | | |
| | 6100 | KISV | 46 | C | 1027.5 | 1028.2 | 1.5 | 5.0 | | | |
| | 9100 | GORK | 1 | S | 1027.6 | 1028.0 | 3.4 | 10.0 | 5.0 | | |
| | 228 | HARS | 45 | C | 1027.8 | 1029.0 | 1.5 | 590.0 | 80.0 | | |
| | 245 | LEAR | 8 | S | 1028.1 | 1029.0 | 2.0 | 260 | | | |
| | 204 | IZMI | 41 | F | 1047.5 | 1049.6 | 6.5 | 300.0 | | | |
| | 430 | KRAK | 8 | S | 1048.7 | 1049.0 | .4 | 31.0 | | | |
| | 430 | KRAK | 3 | S | 1052.5 | 1053.0 | .7 | 57.0 | 4.0 | | |
| | 810 | KRAK | 8 | S | 1053.0 | 1053.2 | .3 | 6.0 | | | |
| | 10715 | DWIN | 1 | S | 1121.0 | 1121.5 | 1.0 | 70.0 | 30.0 | | |
| | 5200 | BERN | 4 | S/F | 1121.0 | 1122.0 | 2.5 | 18.0 | | | |
| | 3200 | BERN | 4 | S/F | 1121.0 | 1121.7 | 2.5 | .0 | | | ONLY PAPER REC |
| | 8400 | BERN | 4 | S/F | 1121.1 | 1122.0 | 2.5 | 58.0 | | | |
| | 8800 | ATHN | 8 | S | 1121.3 | 1121.6 | 1.7 | 40 | | | |
| | 2695 | ATHN | 8 | S | 1121.3 | 1121.6 | 1.0D | 05 | | | |
| | 11800 | BERN | 4 | S/F | 1121.3 | 1122.0 | 1.5 | 71.0 | | | |
| | 19600 | BERN | 4 | S/F | 1121.3 | 1122.0 | 1.5 | 64.0 | | | |
| | 4995 | ATHN | 8 | S | 1121.5 | 1121.6 | 1.0D | 11 | | | |
| | 6100 | KISV | 45 | C | 1121.3 | 1121.8 | 1.2 | 17.0 | | | |
| | 6100 | KISV | | | 1121.3 | 1121.7 | | 11.0 | | | |
| | 9100 | GORK | 1 | S | 1121.4 | 1121.8 | .9 | 30.0 | 15.0 | | |
| | 2950 | GORK | 1 | S | 1121.5 | 1121.7 | 1.3 | 5.4 | | | |
| | 204 | IZMI | 5 | S | 1121.8 | 1121.9 | .8 | 320.0 | 130.0 | | |
| | 8800 | ATHN | 4 | S/F | 1233.6 | 1236.8 | 6.5 | 52 | | | |
| | 810 | KRAK | 8 | S | 1254.3 | 1254.3 | .1 | 11.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 09 | 228 | HAWS | 45 | C | 1308.2 | 1310.0 | 1.8 | 270.0 | 50.0 | | |
| | 430 | KRAK | 42 | SER | 1351.3 | 1351.8 | .7 | 44.0 | | | |
| | 9400 | HUAN | | S | 1548.5 | 1649.7 | 85.8 | 12.5 | 3.7 | | 0 |
| | 2800 | OTTA | 21 | GRF | 1940.0 | 2046 | 90.0 | 4.8 | | | |
| | 2800 | OTTA | 1 | S | 2050.5 | 2050.3 | 3.5 | 8.8 | 3.0 | | |
| | 1000 | TYKW | 45 | C | 2352.0 | 2352.1 | .4 | 55.0 | 10.0 | | |
| 10 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 11.0 | | |
| | 200 | GORK | 44 | NS | 0634.0E | | 312.0D | | 15.0 | | |
| | 100 | GORK | 44 | NS | 0635.0E | | 325.0D | | 5.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 0823.2 | 500.0D | 330.0 | 7.0 | | V1 |
| | 260 | ONDR | 44 | NS | 0822.0E | | 378.0D | 67.0 | | | |
| | 245 | SGMR | 43 | NS | 1152.0 | 1403.8 | 612.0D | 200 | | | |
| | 245 | PALE | 43 | NS | 1727.0 | 0056.8 | 644.0D | 96 | | | |
| | 100 | HIRA | 44 | NS | 2130.0E | 0540 | 640.0D | 100.0 | 30.0 | | SR |
| | 200 | HIRA | 44 | NS | 2130.0E | 0435 | 640.0D | 80.0 | 50.0 | | MR |
| | 245 | LEAR | 43 | NS | 2228.0 | 0300.0 | 740.0D | 180 | | | |
| | 9400 | TYKW | 5 | S | 0130.0 | 0139.5 | 3.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0138.5 | 0139.0 | 1.5 | 1.0 | .3 | | |
| | 2000 | TYKW | 5 | S | 0138.8 | 0139.2 | 1.5 | 1.0 | .3 | | |
| | 1000 | TYKW | 5 | S | 0138.9 | 0139.0 | 1.0 | 5.0 | 1.0 | | |
| | 2930 | VORO | 42 | SER | 0200.0 | 0223 | 65.0 | 154.0 | | | |
| | 5730 | IRKU | 2 | S | 0202.8 | 0203.7 | 4.0 | 71.0 | 22.0 | | L |
| | 200 | HIRA | 8 | S | 0202.9 | 0203.0 | .3 | 380.0 | | | WL |
| | 17000 | NOBE | 7 | C | 0203.0 | 0203.3 | 3.5 | 51.0 | | | R |
| | 35000 | NAGO | 7 | C | 0203.0 | 0203 | 3.0 | 14.0 | | | |
| | 35000 | NAGO | | | 0203.6 | 0205 | | | | | |
| | 3750 | TYKW | 5 | S | 0203.0 | 0203.4 | 7.0 | 54.0 | 15.0 | | |
| | 9400 | TYKW | 45 | C | 0203.0 | 0203.3 | 4.0 | 82.0 | 24.0 | | |
| | 1000 | TYKW | 45 | C | 0203.0 | 0203.3 | 9.0 | 62.0 | 8.0 | | |
| | 2000 | TYKW | 5 | S | 0203.0 | 0203.6 | 7.0 | 44.0 | 12.0 | | |
| | 1415 | LEAR | 4 | S/F | 0203.0 | 0203.1 | 2.3 | 83 | | | |
| | 4995 | LEAR | 8 | S | 0203.1 | 0203.3 | 1.5 | 58 | | | |
| | 606 | LEAR | 8 | S | 0203.1 | 0203.3 | 1.4 | 13 | | | |
| | 410 | LEAR | 8 | S | 0203.1 | 0203.1 | .4 | 11 | | | |
| | 15400 | LEAR | 8 | S | 0203.1 | 0203.1 | 1.0 | 46 | | | |
| | 245 | LEAR | 8 | S | 0203.1 | 0203.3 | .5 | 37 | | | |
| | 8800 | LEAR | 8 | S | 0203.1 | 0203.3 | 1.9 | 81 | | | |
| | 2695 | LEAR | 8 | S | 0203.1 | 0203.6 | 1.5 | 41 | | | |
| | 100 | HIRA | 45 | C | 0203.2 | 0203.3 | 1.2 | 6500.0 | 1100.0 | | WL |
| | 9400 | TYKW | 30 | PBI | 0207.0 | | 15.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 30 | PBI | 0210.0 | | 12.0 | 3.0 | 2.0 | | |
| | 2000 | TYKW | 30 | PBI | 0210.0 | | 12.5 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0222.0 | 0223.8 | 6.0 | 225.0 | 35.0 | | |
| | 3750 | TYKW | 5 | S | 0222.0 | 0224.0 | 10.0 | 183.0 | 35.0 | | |
| | 8800 | MANI | 4 | S/F | 0222.0 | 0224.0 | 6.1 | 230 | | | |
| | 1415 | MANI | 4 | S/F | 0222.1 | 0223.8 | 9.0D | 73 | | | |
| | 4995 | MANI | 4 | S/F | 0222.1 | 0223.8 | 9.9D | 170 | | | |
| | 1000 | TYKW | 45 | C | 0222.5 | 0223.8 | 13.0 | 54.0 | 9.0 | | |
| | 2000 | TYKW | 5 | S | 0222.5 | 0224.1 | 10.5 | 112.0 | 25.0 | | |
| | 5730 | IRKU | 2 | S | 0222.5 | 0223.9 | 6.0 | 320.0 | | | L |
| | 17000 | NOBE | 45 | C | 0222.6 | 0223.8 | 4.5 | 216.0 | | | R |
| | 1415 | LEAR | 4 | S/F | 0222.6 | 0223.6 | 4.9 | 87 | | | |
| | 2695 | MANI | 4 | S/F | 0222.6 | 0224.0 | 9.5D | 119 | | | |
| | 8800 | LEAR | 4 | S/F | 0223.0 | 0223.6 | 2.3 | 230 | | | |
| | 4995 | LEAR | 4 | S/F | 0223.0 | 0223.6 | 3.8 | 200 | | | |
| | 35000 | NAGO | 5 | S | 0223.0 | 0223 | 2.0 | 61.0 | | | |
| | 606 | MANI | 4 | S/F | 0223.1 | 0223.8 | 4.5D | 33 | | | |
| | 15400 | LEAR | 8 | S | 0223.1 | 0223.6 | 1.5 | 190 | | | |
| | 2695 | LEAR | 4 | S/F | 0223.1 | 0224.0 | 4.0 | 130 | | | |
| | 606 | LEAR | 4 | S/F | 0223.3 | 0223.8 | 4.2 | 45 | | | |
| | 245 | LEAR | 8 | S | 0223.6 | 0223.6 | .2 | 65 | | | |
| | 410 | LEAR | 8 | S | 0223.8 | 0223.8 | .2 | 25 | | | |
| 11 | 9400 | TYKW | 29 | PBI | 0228.0 | | 10.0 | 8.0 | 3.0 | | |
| | 3750 | TYKW | 29 | PBI | 0232.0 | | 15.0 | 6.0 | 2.0 | | |
| | 2000 | TYKW | 29 | PBI | 0233.0 | | 15.0 | 3.0 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0252.0 | 0253.6U | 8.0 | 17.0D | 4.0D | | |
| | 1000 | TYKW | 45 | C | 0252.0 | 0252.6U | 7.0 | 60.0 | 4.0D | | |
| | 3750 | TYKW | 5 | S | 0252.0 | 0252.8 | 5.0 | 51.0 | 13.0 | | |
| | 9400 | TYKW | 5 | S | 0252.0 | 0252.6 | 3.0 | 50.0 | 14.0 | | |
| | 5730 | IRKU | 2 | S | 0252.0 | 0252.7 | 5.0 | 59.0 | 8.0 | | L |
| | 17000 | NOBE | 1 | S | 0252.3 | 0252.5 | 1.0 | 23.0 | | | R |
| | 1415 | LEAR | 8 | S | 0252.3 | 0252.5 | .8 | 74 | | | |
| | 606 | LEAR | 8 | S | 0252.3 | 0252.5 | .3 | 20 | | | |
| | 4995 | LEAR | 8 | S | 0252.3 | 0252.6 | 1.3 | 47 | | | |
| | 15400 | LEAR | 8 | S | 0252.3 | 0252.5 | .5 | 35 | | | |
| | 245 | LEAR | 47 | GB | 0252.3 | 0252.6 | .5 | 1000 | | | |
| | 8800 | LEAR | 8 | S | 0252.3 | 0252.5 | .8 | 55 | | | |
| | 2695 | LEAR | 8 | S | 0252.3 | 0252.8 | 1.7 | 43 | | | |
| | 200 | HIRA | 45 | C | 0252.5 | 0252.6 | .7 | 950.0 | 228.0 | | ML |
| | 410 | LEAR | 8 | S | 0252.6 | 0252.8 | .4 | 18 | | | |
| | 606 | LEAR | 8 | S | 0254.0 | 0254.1 | .3 | 390 | | | |
| | 9400 | TYKW | 29 | PBI | 0255.0 | | 5.0 | 4.0 | 1.5 | | |
| | 3750 | TYKW | 29 | PBI | 0257.0 | | 3.0D | 2.0 | 1.5D | | |
| | 9400 | TYKW | 5 | S | 0301.3 | 0301.7 | 1.5 | 6.0 | 2.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 10 | 1000 | TYKW | 45 C | 0307.0 | 0307.3 | .6 | 177.0 | 20.0 | | |
| | 1000 | TYKW | 45 C | 0308.5 | 0309.7 | 4.5 | 25.0 | 4.0 | | |
| | 9400 | TYKW | 45 C | 0309.6 | 0309.5 | 5.0 | 33.0 | 7.0 | | |
| | 2000 | TYKW | 5 S | 0309.0 | 0309.9 | 6.0 | 28.0 | 11.0 | | |
| | 3750 | TYKW | 45 C | 0309.0 | 0309.8 | 6.0 | 42.0 | 12.0 | | |
| | 17000 | NOBE | 7 C | 0309.0 | 0309.4 | 2.0 | 15.0 | | | Ø |
| | 5730 | IRKU | 20 GRF | 0309.0 | 0310.0 | 5.0 | 45.0 | 8.0 | | L |
| | 4995 | LEAR | 4 S/F | 0309.1 | 0309.6 | 4.5 | 40 | | | |
| | 1415 | LEAR | 4 S/F | 0309.1 | 0309.3 | 4.4 | 36 | | | |
| | 15400 | LEAR | 4 S/F | 0309.1 | 0309.3 | 4.0 | 18 | | | |
| | 8800 | LEAR | 4 S/F | 0309.1 | 0309.6 | 4.4 | 34 | | | |
| | 2695 | LEAR | 4 S/F | 0309.1 | 0309.8 | 4.2 | 32 | | | |
| | 606 | LEAR | 8 S | 0309.5 | 0309.6 | .3 | 170 | | | |
| | 245 | LEAR | 47 GB | 0310.0 | 0310.1 | 1.5 | 900 | | | |
| | 2000 | TYKW | 30 PBI | 0315.0 | | 5.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 30 PBI | 0315.0 | | 5.0 | 3.0 | 1.5 | | |
| | 1000 | TYKW | 45 C | 0317.0 | 0317.5 | 3.0 | 28.0 | 4.5 | | |
| | 3750 | TYKW | 45 C | 0317.0 | 0317.5 | 3.0 | 8.0 | 3.0 | | |
| | 2000 | TYKW | 45 C | 0317.0 | 0317.7 | 3.0 | 8.0 | 3.0 | | |
| | 9400 | TYKW | 45 C | 0317.2 | 0317.5 | 2.5 | 8.0 | 3.0 | | |
| | 9400 | TYKW | 45 C | 0320.3 | 0321.0 | 9.7 | 75.0 | 10.0 | | |
| | 2000 | TYKW | 5 S | 0320.3 | 0321.2 | 9.7 | 76.0 | 20.0 | | |
| | 3750 | TYKW | 45 C | 0320.3 | 0321.1 | 9.7 | 96.0 | 20.0 | | |
| | 500 | HIRA | 8 S | 0320.3 | 0320.5 | .3 | 3500.0 | | | WL |
| | 1415 | LEAR | 47 GB | 0320.3 | 0321.0 | 2.5 | 60 | | | |
| | 15400 | LEAR | 8 S | 0320.3 | 0320.8 | .8 | 39 | | | |
| | 606 | LEAR | 47 GB | 0320.3 | 0320.3 | 1.2 | 680 | | | |
| | 245 | LEAR | 8 S | 0320.3 | 0320.5 | 1.0 | 160 | | | |
| | 410 | LEAR | 8 S | 0320.3 | 0320.5 | .5 | 75 | | | |
| | 4995 | LEAR | 8 S | 0320.3 | 0320.8 | 1.8 | 91 | | | |
| | 8800 | LEAR | 8 S | 0320.3 | 0320.8 | 1.5 | 86 | | | |
| | 5730 | IRKU | 2 S | 0320.4 | 0321.1 | 4.0 | 89.0 | 27.0 | | L |
| | 17000 | NOBE | 7 C | 0320.4 | 0321.0 | 1.5 | 33.0 | | | R |
| | 1000 | TYKW | 45 C | 0320.4 | 0321.0 | 9.6 | 41.0 | 10.0 | | |
| | 200 | HIRA | 46 C | 0320.5 | 0321.4 | 2.0 | 55.0 | 18.0 | | WL |
| | 2695 | LEAR | 4 S/F | 0320.5 | 0321.0 | 2.8 | 83 | | | |
| | 3750 | TYKW | 31 ABS | 0330.0 | 0340 | 60.0 | -4.0 | -2.0 | | |
| | 9400 | TYKW | 31 ABS | 0330.0 | 0340 | 60.0 | -4.0 | -2.0 | | |
| | 2000 | TYKW | 31 ABS | 0330.0 | 0340 | 60.0 | -3.0 | -1.5 | | |
| | 1000 | TYKW | 8 S | 0413.1 | 0413.2 | .2 | 52.0 | 15.0 | | |
| | 1000 | TYKW | 42 SER | 0424.5 | 0425.5 | 2.0 | 2.0 | .3U | | |
| | 1000 | TYKW | 42 SER | 0431.0 | 0431.6 | 3.5 | 16.0 | .5 | | |
| | 9400 | TYKW | 5 S | 0437.0 | 0439.7 | 6.0 | 4.0 | 1.5 | | |
| | 2000 | TYKW | 45 C | 0437.0 | 0438.3 | 5.0 | 5.0 | 1.0 | | |
| | 3750 | TYKW | 45 C | 0437.0 | 0439.0 | 6.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 42 SER | 0437.6 | 0438.2 | 2.5 | 13.0 | .5 | | |
| | 9400 | TYKW | 28 PRE | 0555.0 | 0555.6 | 5.0 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 28 PRE | 0555.0 | 0555.7 | 4.5 | 2.5 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0559.5 | 0600 U | .5D | 1.5D | .7D | | |
| | 2000 | TYKW | 45 C | 0600.0E | 0600.3 | 3.0 | 32.0 | 10.0 | | |
| | 9400 | TYKW | 45 C | 0600.0 | 0601.3 | 3.0 | 28.0 | 10.0 | | |
| | 3100 | CRIM | 3 S | 0600.0 | 0601.1 | 4.0 | 33.0 | 11.0 | | |
| | 5730 | IRKU | 1 S | 0600.0 | 0601.4 | 3.0 | 41.0 | 10.0 | | L |
| | 2695 | LEAR | 4 S/F | 0600.0 | 0601.1 | 2.6 | 32 | | | |
| | 1415 | LEAR | 8 S | 0600.0 | 0600.1 | 1.6 | 22 | | | |
| | 4995 | LEAR | 4 S/F | 0600.1 | 0601.1 | 2.5 | 38 | | | |
| | 8800 | LEAR | 4 S/F | 0600.1 | 0601.1 | 2.4 | 32 | | | |
| | 410 | LEAR | 8 S | 0600.8 | 0601.0 | .5 | 170 | | | |
| | 606 | LEAR | 8 S | 0600.8 | 0601.0 | .5 | 150 | | | |
| | 9400 | TYKW | 29 PBI | 0603.0 | | 1.0D | 4.0 | 3.0D | | |
| | 3750 | TYKW | 29 PBI | 0603.0E | | 5.0D | 4.0 | 1.5 | | |
| | 2000 | TYKW | 29 PBI | 0603.0 | | 2.0D | 3.0 | 2.5D | | |
| | 3100 | CRIM | 29 PBI | 0604.0 | 0604.0 | 116.0 | 9.0 | | | |
| | 204 | IZMI | 4 S/F | 0726.0 | 0726.2 | 1.0 | 800.0 | 250.0 | | |
| | 410 | LEAR | 8 S | 0726.0 | 0726.3 | .6 | 139 | | | |
| | 245 | LEAR | 47 GB | 0726.0 | 0726.3 | 1.0 | 1000 | | | |
| | 127 | TORN | 4 S/F | 0726.2 | 0726.9 | 1.3 | 3200.0 | 1600.0 | | |
| | 930 | BORD | 41 F | 0746.2 | 0746.5 | .4 | 96.0 | 2.0 | | |
| | 2950 | GORK | 21 GRF | 0940.0 | 1033.0 | 124.0 | 16.0 | | | |
| | 9100 | GORK | 20 GRF | 1006.0 | 1032.6 | 83.0 | 27.0 | | | |
| | 930 | BORD | 41 F | 1009.7 | 1009.9 | .5 | 44.0 | 2.0 | | |
| | 3100 | CRIM | 28 PRE | 1019.0 | 1030.0 | 11.0 | 6.0 | 2.0 | | |
| | 228 | HARS | 45 C | 1021.4 | 1021.4 | 1.2 | 150.0 | 30.0 | | |
| | 127 | TORN | 4 S/F | 1021.4 | 1021.9 | 1.6 | 1700.0 | 870.0 | | |
| | 204 | IZMI | 5 S | 1021.7 | 1021.7 | 1.0 | 80.0 | 30.0 | | |
| | 3100 | CRIM | 3 S | 1030.0 | 1030.8 | 5.0 | 43.0 | 14.0 | | |
| | 2650 | DWIN | 1 S | 1030.0 | 1031 | 7.0 | 30.0 | 20.0 | | |
| | 2950 | GORK | 3 S | 1030.3 | 1030.8 | 2.6 | 24.0 | 12.0 | | |
| | 1415 | ATHN | 4 S/F | 1030.5 | 1031.3 | 3.3D | 11 | | | |
| | 4995 | ATHN | 4 S/F | 1030.5 | 1032.3 | 6.5D | 17 | | | |
| | 8800 | ATHN | 4 S/F | 1030.5 | 1032.5 | 18.1 | 21 | | | |
| | 2695 | LEAR | 4 S/F | 1030.6 | 1031.1 | 2.4 | 23 | | | |
| | 4995 | LEAR | 8 S | 1032.6 | 1032.6 | .4 | 26 | | | |
| | 4995 | LEAR | 4 S/F | 1035.6 | 1036.6 | 2.3 | 27 | | | |
| | 8800 | LEAR | 4 S/F | 1035.0 | 1036.6 | 2.3 | 20 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 10 | 2695 | LEAR | 4 | S/F | 1035.0 | 1036.6 | 2.3 | 21 | | | |
| | 3100 | CRIM | 29 | PBI | 1035.0 | 1035.0 | 54.0 | 14.0 | 5.0 | | |
| | 15400 | LEAR | 8 | S | 1035.5 | 1036.6 | 1.8 | 25 | | | |
| | 430 | KRAK | 1 | S | 1045.5 | 1045.6 | .5 | 10.0 | 5.0 | | |
| | 2650 | DWIN | 2 | S/F | 1101.0 | 1103 | 3.0 | 20.0 | 10.0 | | |
| | 930 | BORD | 46 | C | 1101.1 | 1101.2 | 1.7 | 12.0 | 3.0 | | |
| | 930 | BORD | 8 | S | 1150.0 | 1150 | .2 | 89.0 | 1.0 | | |
| | 810 | KRAK | 8 | S | 1150.5 | 1150.7 | .5 | 5.0 | | | |
| | 3200 | BERN | 45 | C | 1210.3 | 1211.1 | 13.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 45 | C | 1210.4 | 1211.1 | 17.0 | 10.0 | | | |
| | 930 | BORD | 41 | F | 1211.0 | 1211 | .4 | 18.0 | 2.0 | | |
| | 430 | KRAK | 8 | S | 1211.0 | 1211.1 | .2 | 34.0 | | | |
| | 810 | KRAK | 8 | S | 1211.3 | 1211.5 | .3 | 10.0 | | | |
| | 430 | KRAK | 8 | S | 1300.0 | 1300.0 | .2 | 140.0 | | | |
| | 930 | BORD | 41 | F | 1310.9 | 1311.2 | .4 | 24.0 | 2.0 | | |
| | 810 | KRAK | 8 | S | 1311.0 | 1311.0 | .3 | 13.0 | | | |
| | 9400 | HUAN | | S | 1442.3 | 1450.3 | 16.4 | 7.7 | 4.8 | | 0 |
| | 2800 | OTTA | 22 | GRF | 1700.0 | 1715 | 60.0 | 6.2 | 2.6 | | |
| | 2800 | OTTA | 20 | GRF | 1825.0 | 1853 | 75.0 | 3.0 | 1.5 | | |
| | 9400 | HUAN | | S | 1913.4 | 1913.9 | 1.1 | 10.7 | 6.1 | | 0 |
| | 2800 | OTTA | 22 | GRF | 1945.0 | 1950 | 60.0 | 5.6 | 2.6 | | |
| | 4995 | PALE | 4 | S/F | 1946.8 | 1949.0 | 5.7 | 17 | | | |
| | 8800 | PALE | 4 | S/F | 1946.8 | 1949.0 | 5.7 | 24 | | | |
| | 2800 | OTTA | 8 | S | 2123.0 | 2123.5 | .7 | 24.6 | | | |
| | 3750 | TYKW | 20 | GRF | 2252.0 | 2259 | 30.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 45 | C | 2257.5 | 2300.4 | 4.0 | 45.0 | 5.0 | | |
| 11 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 31.0 | | |
| | 200 | GORK | 44 | NS | 0530.0E | | 450.0D | | 35.0 | | |
| | 100 | GORK | 44 | NS | 0539.0E | | 441.0D | | 20.0 | | |
| | 204 | IZMI | 44 | NS | 0700.0E | | 300.0D | 60.0 | | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1031.2 | 500.0D | 64000.0 | 27.0 | | V2 |
| | 260 | ONDR | 44 | NS | 0820.6E | | 374.0D | 54.0 | 2.0 | | |
| | 200 | HIRA | 44 | NS | 2129.0E | 0019 | 640.0D | 55.0 | 20.0 | | MR |
| | 100 | HIRA | 44 | NS | 2129.0E | 0020 | 640.0D | 160.0 | 10.0 | | SR |
| | 9400 | TYKW | 45 | C | 0118.0 | 0132 | 35.0U | 16.0U | 7.0U | | RAIN |
| | 3750 | TYKW | 20 | GRF | 0121.0U | 0125 | 30.0U | 3.0 | 1.5 | | |
| | 2000 | TYKW | 42 | SER | 0204.0 | 0204.6 | 2.5 | 20.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 0210.0 | 0221 | 180.0 | 5.0 | 3.0 | | |
| | 15400 | PALE | 8 | S | 0220.1 | 0220.1 | .2 | 21 | | | |
| | 410 | PALE | 47 | GB | 0220.1 | 0220.6 | .5 | 720 | | | |
| | 245 | PALE | 47 | GB | 0220.3 | 0220.5 | .3 | 1100 | | | |
| | 3750 | TYKW | 20 | GRF | 0244.0 | 0305.7 | 65.0U | 4.0 | 1.5U | | |
| | 9400 | TYKW | 5 | S | 0245.0 | 0246.2 | 3.0 | 7.0 | 4.0 | | |
| | 9400 | TYKW | 29 | PBI | 0248.0 | | 50.0 | 4.0 | 2.0 | | |
| | 2000 | TYKW | 20 | GRF | 0255.0 | 0313.5 | 55.0 | 1.5 | .5 | | |
| | 245 | LEAR | 8 | S | 0304.8 | 0305.1 | .5 | 40 | | | |
| | 1000 | TYKW | 45 | C | 0304.9 | 0305.2 | 1.3 | 14.0 | 3.0 | | |
| | 1415 | LEAR | 8 | S | 0305.0 | 0305.1 | .3 | 10 | | | |
| | 606 | LEAR | 8 | S | 0305.0 | 0305.1 | .3 | 05 | | | |
| | 410 | LEAR | 8 | S | 0305.0 | 0305.1 | .3 | 60 | | | |
| | 410 | LEAR | 4 | S/F | 0305.1 | 0305.3 | 486.0 | 60 | | | |
| | 1000 | TYKW | 5 | S | 0326.9 | 0327.1 | .6 | 4.5 | 1.0 | | |
| | 1000 | TYKW | 5 | S | 0341.3 | 0341.6 | 1.0 | 1.0 | .4 | | |
| | 9400 | TYKW | 21 | GRF | 0351.0 | 0359 | 70.0 | 9.0 | 4.5 | | |
| | 1000 | TYKW | 45 | C | 0351.4 | 0351.5 | .6 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 5 | S | 0352.0 | 0355.0 | 8.0 | 6.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 0352.0 | 0358 | 70.0 | 9.0 | 4.0 | | |
| | 1000 | TYKW | 45 | C | 0354.7 | 0355.1 | .5 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 29 | PBI | 0400.6 | | 55.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0402.0 | 0403.1 | 4.0 | 7.0 | 2.0 | | |
| | 9400 | TYKW | 20 | GRF | 0406.0 | 0420 | 35.0 | 4.0 | 2.0 | | |
| | 9400 | TYKW | 20 | GRF | 0520.0 | 0657 | 140.0 | 12.0 | 4.0U | | RAIN |
| | 3750 | TYKW | 21 | GRF | 0520.0 | 0655 | 140.0 | 14.0 | 6.0 | | |
| | 2000 | TYKW | 21 | GRF | 0520.0 | 0655 | 140.0 | 4.0 | 2.0 | | |
| | 500 | HIRA | 46 | C | 0610.0 | 0610.9 | 2.0 | 400.0 | 70.0 | | ML |
| | 200 | GORK | 8 | S | 0610.0 | 0610.7 | 1.7 | 200.0D | | | |
| | 606 | LEAR | 4 | S/F | 0610.0 | 0610.3 | 2.1 | 86 | | | |
| | 245 | LEAR | 8 | S | 0610.3 | 0610.8 | 1.5 | 180 | | | |
| | 200 | HIRA | 46 | C | 0610.5 | 0611.0 | 1.4 | 960.0 | 335.0 | | ML |
| | 3750 | TYKW | 5 | S | 0610.5 | 0611.2 | 2.5 | 1.5 | .5 | | |
| | 100 | HIRA | 46 | C | 0610.6 | 0611.0 | 1.5 | 3000.0 | 1200.0 | | WL |
| | 410 | LEAR | 8 | S | 0610.6 | 0610.8 | 1.0 | 130 | | | |
| | 2000 | TYKW | 5 | S | 0611.0 | 0611.3 | 1.0 | 1.0 | .3 | | |
| | 1000 | TYKW | 5 | S | 0611.0 | 0611.3 | 1.5 | 2.0 | .5 | | |
| | 650 | GORK | 4 | S/F | 0615.5 | 0616.1 | 2.3 | 53.0 | | | |
| | 3100 | CRIM | 20 | GRF | 0837.0 | 0900.0 | 88.0 | 6.0 | 2.0 | | |
| | 8400 | BERN | 20 | GRF | 0922.5 | 0942.1 | 40.0 | 11.0 | | | |
| | 5200 | BERN | 20 | GRF | 0923.2 | 0942.1 | 40.0 | 21.0 | | | |
| | 3200 | BERN | 20 | GRF | 0930.0 | 0942.1 | 35.0 | .0 | | | ONLY PAPER REC |
| | 4995 | LEAR | 4 | S/F | 0940.0 | 0943.1 | 10.1 | 19 | | | |
| | 4995 | ATHN | 4 | S/F | 0940.6 | 0944.1 | 8.9 | 20 | | | |
| | 9100 | GORK | 20 | GRF | 0941.1 | 0946.0 | 9.5 | 7.0 | 3.0 | | |
| | 5200 | BERN | 21 | GRF | 1046.0 | 1053.5 | 30.0 | 14.0 | | | |
| | 3200 | BERN | 21 | GRF | 1046.0 | 1053.5 | 25.0 | .0 | | | ONLY PAPER REC |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 11 | 8400 | BERN | 21 | GRF | 1050.7 | 1053.3 | 19.0 | 26.0 | | | |
| | 11800 | BERN | 21 | GRF | 1051.0 | 1053.3 | 11.0 | 18.0U | | | |
| | 3100 | CRIM | 20 | GRF | 1145.0 | 1150.0 | 10.0 | 3.0 | 1.0 | | |
| | 810 | KRAK | 8 | S | 1225.8 | 1226.0 | .5 | 12.0 | | | |
| | 536 | ONDR | 42 | SER | 1233.0 | 1248.3 | 54.0 | 20.0 | | | |
| | 2800 | OTTA | 20 | GRF | 1420.0E | 1455 | 90.0D | 3.8 | | | |
| | 2800 | OTTA | 22 | GRF | 1555.0 | 1623 | 105.0 | 14.2 | 7.1 | | |
| | 9400 | HUAN | | S | 1613.4 | 1627.5 | 80.1 | 11.7 | 6.6 | | L |
| | 2800 | OTTA | 20 | GRF | 1820.6 | 2020 | 200.0 | 3.8 | 1.9 | | |
| | 9400 | HUAN | | S | 2150.7 | 2204.2 | 27.5 | 6.7 | 2.7 | | 0 |
| | 9400 | TYKW | 5 | S | 2218.5 | 2219.0 | 1.0 | 20.0 | 7.0 | | |
| | 3750 | TYKW | 28 | PRE | 2241.0 | 2242.8 | 15.0 | 4.0 | 1.5 | | |
| | 2000 | TYKW | 45 | C | 2256.0 | 2257.0 | 3.0 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 45 | C | 2256.0 | 2257.6 | 4.0 | 10.0 | 3.5 | | |
| | 9400 | TYKW | 45 | C | 2256.0 | 2257.6 | 4.0 | 42.0 | 12.0 | | |
| | 17000 | NOBE | 7 | C | 2256.4 | 2257.5 | 10.0 | 30.0 | | | 0 |
| | 2695 | PENT | 1 | S | 2256.5 | 2258 | 3.5 | 2.8 | 1.4 | | |
| | 1000 | TYKW | 42 | SER | 2256.7 | 2257.0 | 3.0 | 14.0 | 1.5 | | |
| | 15400 | LEAR | 8 | S | 2257.0 | 2257.6 | 1.5 | 20 | | | |
| | 4995 | LEAR | 8 | S | 2257.3 | 2257.6 | .2 | 18 | | | |
| | 8800 | LEAR | 8 | S | 2257.3 | 2257.6 | .5 | 39 | | | |
| | 9400 | TYKW | 29 | PBI | 2300.0 | | 30.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 29 | PBI | 2300.0 | | 30.0 | 4.0 | 2.0 | | |
| | 2695 | LEAR | 8 | S | 2302.6 | 2302.8 | .5 | 13 | | | |
| | 4995 | LEAR | 8 | S | 2302.6 | 2302.8 | .5 | 15 | | | |
| | 3750 | TYKW | 20 | GRF | 2355.0 | 0004 | 35.0U | 5.0 | 2.0U | | |
| 12 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 14.0 | | |
| | 200 | GORK | 44 | NS | 0600.0E | | 398.0D | | 15.0 | | |
| | 100 | GORK | 44 | NS | 0600.0E | | 420.0D | | 5.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1347.0 | 500.0D | 1200.0 | 6.0 | | V2 |
| | 260 | ONDR | 44 | NS | 0820.0E | | 380.0D | 84.0 | | | |
| | 9400 | TYKW | 5 | S | 0023.0 | 0023.5 | 1.5 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0048.0 | 0048.5 | 2.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 21 | GRF | 0122.0 | 140 | 400.0 | 30 | 15 | | |
| | 9400 | TYKW | 21 | GRF | 0122.6 | 0130 | 40.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0122.0 | 0122.4 | 1.0 | 12.0 | 2.5 | | |
| | 9400 | TYKW | 5 | S | 0122.0 | 0122.4 | 1.0 | 6.0 | 1.5 | | |
| | 4995 | LEAR | 8 | S | 0122.1 | 0122.3 | .5 | 09 | | | |
| | 1415 | LEAR | 8 | S | 0122.1 | 0122.3 | .5 | 21 | | | |
| | 8800 | LEAR | 8 | S | 0122.1 | 0122.3 | .5 | 11 | | | |
| | 2695 | LEAR | 8 | S | 0122.1 | 0122.5 | .5 | 07 | | | |
| | 2000 | TYKW | 5 | S | 0122.2 | 0122.4 | 1.0 | 7.0 | 2.0 | | |
| | 1000 | TYKW | 5 | S | 0122.3 | 0122.4 | 1.0 | 1.0 | .3 | | |
| | 3750 | TYKW | 21 | GRF | 0205.0 | 0345 | 220.0 | 10.0 | 5.0 | | |
| | 3750 | TYKW | 5 | S | 0206.0 | 0209 | 10.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 21 | GRF | 0228.0 | 0347 | 200.0 | 9.0 | 4.0 | | |
| | 9400 | TYKW | 5 | S | 0228.0 | 0230 | 20.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 21 | GRF | 0230.0 | 0340 | 190.0 | 3.5 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0312.0 | 0315 | 20.0U | 3.0 | 1.5 | | |
| | 2000 | TYKW | 5 | S | 0349.0 | 0350 | 2.5 | 1.5 | .5 | | |
| | 2000 | TYKW | 5 | S | 0412.5 | 0413.5 | 2.5 | 7.0 | 1.5 | | |
| | 1000 | TYKW | 45 | C | 0412.7 | 0413.0 | 2.0 | 3.0 | .7 | | |
| | 200 | HIRA | 46 | C | 0412.9 | 0413.5 | 1.1 | 1900.0 | 344.0 | | ML |
| | 3750 | TYKW | 5 | S | 0413.0 | 0413.5 | 1.0 | 10.0 | 3.0 | | |
| | 9400 | TYKW | 5 | S | 0413.0 | 0413.5 | 1.0 | 12.0 | 2.5 | | |
| | 100 | HIRA | 45 | C | 0413.4 | 0413.7 | 1.4 | 1700.0 | 330.0 | | WL |
| | 2000 | TYKW | 21 | GRF | 0432.0 | 0450 | 40.0 | 1.5 | .7 | | |
| | 3750 | TYKW | 21 | GRF | 0432.0 | 0450 | 40.0 | 30.0 | 1.5 | | |
| | 2000 | TYKW | 5 | S | 0432.9 | 0433.0 | 1.0 | 3.5 | .5 | | |
| | 3750 | TYKW | 5 | S | 0433.0 | 0433.4 | 1.0 | 2.0 | .7 | | |
| | 9400 | TYKW | 20 | GRF | 0433.0 | 0440 | 40.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 45 | C | 0531.6 | 0533 | 15.0 | 4.0 | 1.5 | | |
| | 606 | LEAR | 8 | S | 0532.8 | 0532.8 | .2 | 11 | | | |
| | 410 | LEAR | 8 | S | 0609.0 | 0609.0 | .1 | 05 | | | |
| | 606 | LEAR | 8 | S | 0609.0 | 0609.0 | .1 | 06 | | | |
| | 245 | LEAR | 8 | S | 0609.0 | 0609.1 | .1 | 20 | | | |
| | 6100 | KISV | 27 | RF | 0620.0 | 0627 | 25.0 | 4.0 | | | |
| | 9400 | TYKW | 5 | S | 0623.0 | 0627 | 15.0 | 6.0 | 3.0 | | |
| | 3750 | TYKW | 5 | S | 0625.0 | 0629 | 10.0 | 2.0 | 1.0 | | |
| | 6100 | KISV | 27 | RF | 0700.0 | 0706 | 12.0 | 3.0 | | | |
| | 204 | IZMI | 5 | S | 0717.5 | 0717.6 | 1.0 | 160.0 | 40.0 | | |
| | 6100 | KISV | | | 0730.0 | 0752 | | 4.0 | | | |
| | 6100 | KISV | 46 | C | 0730.0 | 0746 | 30.0 | 5.0 | | | |
| | 6100 | KISV | 3 | S | 0811.0 | 0811.5 | 3.0 | 3.0 | | | |
| | 6100 | KISV | 3 | S | 0819.5 | 0820.5 | 2.0 | 4.0 | | | |
| | 2950 | GORK | 22 | GRF | 0924.9 | 0931.7 | 38.0 | 6.5 | | | |
| | 6100 | KISV | | | 0927.0 | 0931.1 | | 34.0 | | | |
| | 6100 | KISV | 46 | C | 0927.0 | 0931.4 | 23.0 | 45.0 | | | |
| | 6100 | KISV | | | 0927.0 | 0931.8 | | 36.0 | | | |
| | 6100 | KISV | | | 0927.0 | 0930.5 | | 14.0 | | | |
| | 11800 | BERN | 4 | S/F | 0927.4 | 0931.2 | 10.0 | 49.0 | | | |
| | 8400 | BERN | 4 | S/F | 0927.4 | 0931.3 | 25.0 | 81.0 | | | |
| | 10715 | DWIN | 2 | S/F | 0928.0 | 0931 | 5.0 | 50.0 | 20.0 | | |
| | 3200 | BERN | 4 | S/F | 0928.0 | 0931.1 | 45.0 | .0 | | | ONLY PAPER REC |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 5200 | BERN | 4 | S/F | 0928.0 | 0931.3 | 45.0 | 51.0 | | | |
| | 9100 | GORK | 21 | GRF | 0928.1 | 0932.6 | 56.0 | 15.0 | | | |
| | 8800 | ATHN | 4 | S/F | 0928.3 | 0931.3 | 8.0 | 68 | | | |
| | 4995 | ATHN | 4 | S/F | 0929.0 | 0931.3 | 9.1D | 85 | | | |
| | 9100 | GORK | 4 | S/F | 0929.6 | 0931.3 | 2.8 | 52.0 | | | |
| | 8800 | LEAR | 4 | S/F | 0929.8 | 0931.3 | 2.3 | 71 | | | |
| | 3100 | CRIM | 1 | S | 0930.5 | 0931.0 | 2.0 | 7.0 | 2.0 | | |
| | 15400 | LEAR | 8 | S | 0930.8 | 0931.1 | 1.3 | 32 | | | |
| | 4995 | LEAR | 8 | S | 0930.8 | 0931.3 | 1.5 | 41 | | | |
| | 2695 | LEAR | 8 | S | 0931.3 | 0931.3 | .2 | 13 | | | |
| | 3100 | CRIM | 29 | PBI | 0932.5 | 0932.5 | 6.0 | 3.0 | 1.0 | | |
| | 2950 | GORK | 22 | GRF | 1019.2 | 1125.5 | 77.0 | 6.0 | | | |
| | 3200 | BERN | 22 | GRF | 1029.5 | 1125.3 | 72.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 22 | GRF | 1029.5 | 1125.4 | 72.0 | 13.0 | | | |
| | 8400 | BERN | 22 | GRF | 1038.3 | 1121.0 | 65.0 | 30.0 | | | |
| | 930 | BORD | 41 | F | 1043.5 | 1043.8 | .3 | 12.0 | 2.0 | | |
| | 11800 | BERN | 22 | GRF | 1046.0 | 1121.0 | 60.0 | 17.0 | | | |
| | 3100 | CRIM | 1 | S | 1048.8 | 1049.5 | 1.0 | 6.0 | 2.0 | | |
| | 3100 | CRIM | 20 | GRF | 1104.0 | 1108.0 | 10.0 | 5.0 | 2.0 | | |
| | 9100 | GORK | 21 | GRF | 1118.8 | 1125.4 | 11.1 | 7.0 | | | |
| | 9100 | GORK | 1 | S | 1120.4 | 1121.1 | .9 | 19.0 | 10.0 | | |
| | 228 | HARS | 45 | C | 1122.0 | 1123.6 | 3.6 | 400.0 | 100.0 | | |
| | 204 | IZMI | 41 | F | 1122.3 | 1124.0 | 4.3 | 680.0 | | | |
| | 127 | TORN | 47 | GB | 1122.4 | 1123.6 | 2.5 | 4600.0 | 690.0 | | |
| | 29 | UPIC | 45 | C | 1123.4 | 1124.1 | 2.7 | | | | |
| | 3100 | CRIM | | | 1123.5 | 1125.3 | | 3.0 | | | |
| | 3100 | CRIM | 45 | C | 1123.5 | 1124.0 | 4.0 | 3.0 | 1.0 | | |
| | 5200 | BERN | 4 | S/F | 1238.6 | 1242.3 | 80.0 | 26.0 | | | |
| | 3200 | BERN | 4 | S/F | 1238.6 | 1242.2 | 80.0 | .0 | | | ONLY PAPER REC |
| | 100 | GORK | 41 | F | 1238.7 | 1238.8 | 5.2 | 260.0D | | | |
| | 100 | GORK | | | 1238.7 | 1242.9 | | 440.0 | | | |
| | 29 | UPIC | 46 | C | 1239.2 | 1242 | 9.8 | | | | |
| | 9400 | HUAN | | S | 1239.6 | 1254.2 | 37.2 | 10.2 | 4.8 | | 0 |
| | 8400 | BERN | 4 | S/F | 1240.0 | 1242.3 | 50.0 | 16.0 | | | |
| | 8800 | ATHN | 4 | S/F | 1241.3 | 1242.6 | 28.2 | 00 | | | |
| | 4995 | ATHN | 4 | S/F | 1241.3 | 1242.6 | 28.7D | 30 | | | |
| | 650 | GORK | 46 | C | 1241.3 | 1242.6 | 6.9 | 15.0 | | | |
| | 650 | GORK | 46 | C | 1241.3 | 1243.9 | | 16.0 | | | |
| | 2695 | ATHN | 4 | S/F | 1241.5 | 1242.0 | 7.8D | 22 | | | |
| | 810 | KRAK | 42 | SER | 1241.8 | 1242.2 | 5.3 | 20.0 | | | |
| | 930 | BORD | 45 | C | 1242.0 | 1242.7 | 4.0 | 28.0 | 4.0 | | |
| | 808 | ONDR | 42 | SER | 1242.0 | 1320.6 | 65.0 | 75.0 | | | |
| | 536 | ONDR | 42 | SER | 1242.0 | 1341.8 | 76.0 | 13.0 | | | |
| | 2650 | DWIN | 2 | S/F | 1242.0 | 1243 | 3.0 | 20.0 | 10.0 | | |
| | 430 | KRAK | 7 | C | 1242.2 | 1244.7 | 2.7 | 70.0 | 5.0 | | |
| | 2800 | OTTA | 1 | S | 1341.5 | 1342.8 | 1.5 | 4.8 | 2.3 | | |
| | 930 | BORD | 41 | F | 1341.8 | 1342 | 2.0 | 143.0 | 2.0 | | |
| | 430 | KRAK | 8 | S | 1342.0 | 1342.0 | .1 | 50.0 | | | |
| | 810 | KRAK | 42 | SER | 1342.0 | 1342.0 | 1.0 | 50.0 | | | |
| | 127 | TORN | 4 | S/F | 1356.9 | 1357.7 | 2.0 | 4200.0 | 830.0 | | |
| | 9400 | HUAN | | S | 1525.6 | 1529.8 | 35.1 | 13.6 | 5.8 | | 0 |
| | 5200 | BERN | 20 | GRF | 1528.2 | 1529.0 | 36.0 | 18.0 | | | ONLY PAPER REC |
| | 11800 | BERN | 20 | GRF | 1528.2 | 1529.0 | 48.0 | 16.0 | | | ONLY PAPER REC |
| | 8400 | BERN | 20 | GRF | 1528.2 | 1529.0 | 36.0 | 19.0 | | | ONLY PAPER REC |
| | 2800 | OTTA | 20 | GRF | 1530.0 | 1612 | 260.0 | 7.4 | 3.7 | | |
| | 2800 | OTTA | 1 | S | 2000.8 | 2001.5 | 2.5 | 2.8 | 1.4 | | |
| | 245 | SGMR | 4 | S/F | 2108.8 | 2109.0 | 4.2 | 83 | | | |
| | 410 | LEAR | 8 | S | 2337.0 | 2337.1 | .5 | 18 | | | |
| | 245 | LEAR | 47 | GB | 2337.1 | 2337.3 | .4 | 760 | | | |
| 13 | 200 | GORK | 43 | NS | 0729.0 | | 244.0E | | 5.0 | | |
| | 260 | ONDR | 44 | NS | 0837.0E | | 373.0D | 21.0 | | | |
| | 29 | UPIC | 43 | NS | 0837.2 | 0957.2 | 264.3D | | | | |
| | 245 | SGMR | 43 | NS | 1232.3 | 1538.0 | 575.7D | 61 | | | |
| | 245 | LEAR | 43 | NS | 2229.0 | 0056.6 | 286.0 | 20 | | | |
| | 9400 | TYKW | 20 | GRF | 0033.6 | 0045 U | 95.0U | 10.0 | 3.0U | | RAIN |
| | 3750 | TYKW | 20 | GRF | 0033.0 | 0045 | 110.0 | 5.0 | 3.0U | | |
| | 2000 | TYKW | 20 | GRF | 0035.0 | 0050 | 100.0 | 3.0 | 1.5 | | |
| | 245 | PALE | 8 | S | 0059.8 | 0100.8 | 1.5 | 66 | | | |
| | 100 | HIRA | 45 | C | 0101.0U | 0101.3 | 1.4U | 880.0 | 85.0U | | WL |
| | 606 | LEAR | 8 | S | 0232.1 | 0232.1 | 1.0 | 20 | | | |
| | 3750 | TYKW | 20 | GRF | 0307.0 | 0310 | 40.0 | 7.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0307.0 | 0310 | 14.0 | 10.0 | 2.5 | | |
| | 4995 | LEAR | 4 | S/F | 0309.6 | 0309.8 | 3.4 | 11 | | | |
| | 8800 | LEAR | 4 | S/F | 0309.6 | 0310.1 | 3.4 | 11 | | | |
| | 100 | HIRA | 41 | F | 0407.6 | 0408.0 | 1.1 | 80.0 | | | 0 |
| | 3750 | TYKW | 5 | S | 0411.0 | 0415.0 | 8.0 | 10.0 | 4.0 | | |
| | 9400 | TYKW | 5 | S | 0412.5 | 0414.0 | 5.5 | 10.0 | 5.0 | | |
| | 2000 | TYKW | 5 | S | 0413.0 | 0414.7 | 4.0 | 2.0 | .5 | | |
| | 4995 | LEAR | 4 | S/F | 0413.6 | 0415.0 | 8.4 | 16 | | | |
| | 9400 | TYKW | 29 | PBI | 0418.0 | | 70.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 30 | PBI | 0419.0 | | 65.0 | 3.5 | 2.0 | | |
| | 2000 | TYKW | 20 | GRF | 0430.0 | 0442 | 30.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0432.0 | 0434.5 | 25.0 | 5.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0530.0 | 0536 | 15.0 | 2.0 | 1.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 13 | 8800 | ATHN | 8 | S | 0549.5 | 0550.0 | 1.5 | 37 | | | |
| | 4995 | ATHN | 8 | S | 0549.6 | 0550.1 | .9D | 58 | | | |
| | 9400 | TYKW | 5 | S | 0549.6 | 0550.3 | 3.0 | 21.0 | 6.0 | | |
| | 3750 | TYKW | 5 | S | 0549.6 | 0550.3 | 1.5 | 23.0 | 9.0 | | |
| | 5730 | IRKU | 1 | S | 0549.8 | 0550.3 | 3.0 | 45.0 | 12.0 | | R |
| | 15400 | LEAR | 8 | S | 0549.8 | 0550.1 | .8 | 19 | | | |
| | 4995 | LEAR | 8 | S | 0550.0 | 0550.1 | .8 | 32 | | | |
| | 8800 | LEAR | 8 | S | 0550.0 | 0550.1 | .8 | 31 | | | |
| | 3750 | TYKW | 30 | PBI | 0551.0 | | 15.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 0552.4 | 0552.9 | 2.5 | 2.0 | .5 | | |
| | 9400 | TYKW | 5 | S | 0614.5 | 0615.0 | 1.5 | 3.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0614.5 | 0615.0 | 1.5 | 2.0 | .5 | | |
| | 9400 | TYKW | 20 | GRF | 0618.0 | 0633 | 60.0U | 8.0 | 4.0U | | |
| | 2000 | TYKW | 21 | GRF | 0620.0 | 0658 | 60.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 0620.6 | 0658 | 60.0 | 6.0 | 3.5 | | |
| | 2000 | TYKW | 5 | S | 0632.0 | 0633.3 | 4.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0632.0 | 0633.3 | 12.0 | 7.0 | 1.5 | | |
| | 3100 | CRIM | 20 | GRF | 0632.0 | 0635.0 | 10.0 | 6.0 | 2.0 | | |
| | 2950 | GORK | 20 | GRF | 0632.5 | 0633.2 | 43.5 | 4.7 | 2.0 | | |
| | 2695 | LEAR | 4 | S/F | 0632.8 | 0633.3 | 2.3 | 07 | | | |
| | 8800 | LEAR | 8 | S | 0632.8 | 0633.3 | 1.3 | 07 | | | |
| | 4995 | LEAR | 8 | S | 0632.8 | 0633.3 | 2.0 | 07 | | | |
| | 9400 | TYKW | 5 | S | 0722.9 | 0723.1 | 1.0 | 6.0 | 2.0 | | |
| | 3200 | BERN | 45 | C | 0730.0 | 0813.5 | 150.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 45 | C | 0730.0 | 0813.6 | 150.0 | 20.0 | | | |
| | 8800 | ATHN | 8 | S | 0738.1 | 0739.0 | 1.2 | 46 | | | |
| | 4995 | LEAR | 4 | S/F | 0752.1 | 0754.5 | 3.7 | 10 | | | |
| | 4995 | LEAR | 4 | S/F | 0752.1 | 0754.5 | 3.7 | 10 | | | |
| | 9100 | GORK | 1 | S | 0752.4 | 0754.3 | 4.5 | 20.0 | 10.0 | | |
| | 6100 | KISV | 46 | C | 0752.5 | 0754.4 | 5.0 | 9.0 | | | |
| | 8800 | ATHN | 4 | S/F | 0752.5 | 0754.3 | 2.8 | 23 | | | |
| | 10715 | DWIN | 1 | S | 0753.0 | 0754 | 3.0 | 25.0 | 15.0 | | |
| | 4995 | ATHN | 4 | S/F | 0753.3 | 0754.3 | 2.8D | 11 | | | |
| | 3100 | CRIM | 1 | S | 0753.5 | 0754.5 | 2.0 | 4.0 | 1.0 | | |
| | 15400 | LEAR | 8 | S | 0754.3 | 0754.5 | .5 | 23 | | | |
| | 8800 | LEAR | 8 | S | 0754.3 | 0754.5 | .5 | 18 | | | |
| | 6100 | KISV | 4 | S/F | 0812.0 | 0813.5 | 3.0 | 12.0 | | | |
| | 9100 | GORK | 1 | S | 0812.5 | 0813.5 | 2.4 | 12.0 | 6.0 | | |
| | 8800 | ATHN | 8 | S | 0813.0 | 0813.5 | 1.3 | 00 | | | |
| | 3100 | CRIM | 1 | S | 0813.2 | 0813.5 | 1.0 | 6.0 | 2.0 | | |
| | 2950 | GORK | 1 | S | 0813.3 | 0813.5 | 1.0 | 3.7 | 1.5 | | |
| | 4995 | ATHN | 8 | S | 0813.3 | 0813.6 | .8D | 13 | | | |
| | 6100 | KISV | 3 | S | 0829.0 | 0830 | 2.0 | 3.0 | | | |
| | 8800 | ATHN | 4 | S/F | 0847.1 | 0848.5 | 3.0 | 10 | | | |
| | 4995 | ATHN | 4 | S/F | 0847.3 | 0848.5 | 4.0D | 19 | | | |
| | 9100 | GORK | 1 | S | 0847.8 | 0848.3 | 4.3 | 8.0 | 4.0 | | |
| | 3200 | BERN | 45 | C | 1120.0 | 1234.7 | 165.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 45 | C | 1120.0 | 1234.8 | 165.0 | 13.0 | | | |
| | 6100 | KISV | 27 | RF | 1123.0 | 1126 | 7.0 | 4.0 | | | |
| | 6100 | KISV | 3 | S | 1149.0 | 1152 | 5.0 | 4.0 | | | |
| | 4995 | ATHN | 4 | S/F | 1149.6 | 1152.1 | 8.5D | 00 | | | |
| | 8800 | ATHN | 4 | S/F | 1149.6 | 1152.1 | 5.4 | 11 | | | |
| | 9100 | GORK | 1 | S | 1149.7 | 1152.0 | 4.4 | 4.0 | 2.0 | | |
| | 2950 | GORK | 1 | S | 1151.0 | 1152.0 | 3.0 | 3.2 | 1.6 | | |
| | 3100 | CRIM | 1 | S | 1151.5 | 1154.0 | 5.0 | 7.0 | 2.0 | | |
| | 2800 | OTTA | | | 1355.0 | 1402 | 40.0 | 5.2 | | | |
| | 5200 | BERN | 20 | GRF | 1357.3 | 1401.5 | 30.0 | 23.0 | | | |
| | 3200 | BERN | 20 | GRF | 1357.3 | 1401.5 | 30.0 | .0 | | | ONLY PAPER REC |
| | 9400 | HUAN | | S | 1359.3 | 1409.5 | 28.1 | 11.4 | 5.4 | | 0 |
| | 536 | ONDR | 8 | S | 1424.1 | 1424.1 | .2 | 21.0 | | | |
| | 2800 | OTTA | 8 | S | 1517.1 | 1517.1 | .1 | 14.4 | | | |
| | 11800 | BERN | 3 | S | 1521.3 | 1524.4 | 5.0 | 20.0 | | | |
| | 8400 | BERN | 3 | S | 1522.6 | 1524.4 | 4.0 | 24.0 | | | |
| | 9400 | HUAN | | S | 1523.3 | 1524.5 | 3.1 | 17.9 | 9.3 | | 0 |
| | 2800 | OTTA | 1 | S | 1524.0 | 1524.5 | 1.0 | 2.2 | 1.1 | | |
| | 2800 | OTTA | 240 | R | 1620.0 | 1640 | 20.0 | 3.0 | 1.8 | | |
| | 2695 | PENT | 2 | S/F | 1700.0 | 1702 | 5.0 | 5.8 | 1.8 | | |
| | 2800 | OTTA | 20 | GRF | 1720.0 | 1725 | 30.0 | 2.6 | 1.3 | | |
| | 2800 | OTTA | 21 | GRF | 1805.6 | 1941 | 195.0 | 9.8 | 3.3 | | |
| | 245 | SGMR | 4 | S/F | 1907.3 | 1909.1 | 2.7 | 490 | | | |
| | 245 | SGMR | 47 | GB | 1925.6 | 1926.0 | 1.0 | 2600 | | | |
| | 2800 | OTTA | 1 | S | 1935.0 | 1937.2 | 4.0 | 9.8 | 4.5 | | |
| | 2695 | PENT | 20 | GRF | 2155.0 | 2240 | 90.0 | 4.2 | 2.4 | | |
| | 3750 | TYKW | 21 | GRF | 2334.0 | 2336 | 50.0 | 4.0 | 1.5 | | |
| 14 | 245 | LEAR | 43 | NS | 0332.1 | 0542.5 | 433.9D | 20 | | | |
| | 245 | PALE | 43 | NS | 0342.8 | 0343.0 | 30.2D | 95 | | | |
| | 29 | UPIC | 43 | NS | 0754.8 | 0834.9 | 333.1D | | | | |
| | 260 | ONDR | 44 | NS | 0802.0E | | 418.0D | 14.0 | | | |
| | 245 | LEAR | 43 | NS | 2230.0 | 0715.3 | 736.0D | 85 | | | |
| | 200 | HIRA | 43 | NS | 2250.0 | 0422 | 550.0D | 10.0 | 3.0 | | 0 |
| | 3750 | TYKW | 5 | S | 0006.5 | 0006.8 | .8 | 2.0 | .5 | | |
| | 3750 | TYKW | 20 | GRF | 0056.0 | 0110 | 70.0. | 2.0 | 1.0 | | |
| | 3750 | TYKW | 20 | GRF | 0230.0 | 0236 | 60.0 | 3.0 | 1.5 | | |
| | 208 | VORO | 42 | SER | 0319.0 | | 41.0D | | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 245 | LEAR | 47 GB | 0319.1 | 0319.3 | .5 | 540 | | | |
| | 245 | PALE | 47 GB | 0319.3 | 0319.3 | .7 | 530 | | | |
| | 410 | LEAR | 8 S | 0319.3 | 0319.3 | .2 | 18 | | | |
| | 606 | LEAR | 8 S | 0340.6 | 0341.0 | .5 | 09 | | | |
| | 410 | LEAR | 8 S | 0340.6 | 0340.8 | .5 | 19 | | | |
| | 410 | LEAR | 8 S | 0546.1 | 0547.3 | 1.5 | 170 | | | |
| | 245 | LEAR | 47 GB | 0546.1 | 0546.1 | 1.2 | 900 | | | |
| | 606 | LEAR | 8 S | 0547.3 | 0547.3 | .3 | 18 | | | |
| | 2000 | TYKW | 20 GRF | 0550.0 | 0555 | 90.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0603.0E | 0605.7 | 15.0D | 9.0 | 3.0D | | |
| | 6100 | KISV | 3 S | 0604.0 | 0605.6 | 4.0 | 8.0 | | | |
| | 4995 | LEAR | 8 S | 0605.3 | 0605.6 | .3 | 17 | | | |
| | 2950 | GORK | 20 GRF | 0751.8 | 0754.2 | 25.0 | 4.0 | 2.0 | | |
| | 6100 | KISV | 27 RF | 0754.0 | 0810 | 36.0 | 7.0 | | | |
| | 200 | HIRA | 8 S | 0754.3 | 0754.3 | .4 | 230.0 | | | 0 |
| | 410 | LEAR | 8 S | 0754.3 | 0754.5 | .3 | 13 | | | |
| | 245 | LEAR | 8 S | 0754.3 | 0754.5 | .3 | 139 | | | |
| | 930 | BORD | 41 F | 0800.7 | 0801 | 1.0 | 36.0 | 2.0 | | |
| | 410 | LEAR | 8 S | 0803.1 | 0803.3 | 1.7 | 22 | | | |
| | 245 | LEAR | 8 S | 0804.1 | 0804.5 | .7 | 25 | | | |
| | 2950 | GORK | 20 GRF | 0830.0 | 0833.3 | 12.0 | 3.0 | 1.5 | | |
| | 536 | ONDR | 42 SER | 1236.8 | 1354.6 | 89.0 | 15.0 | | | |
| | 2800 | OTTA | 21 GRF | 1600.0 | 1608 | 35.0 | 3.0 | 1.5 | | |
| | 245 | SGMR | 4 S/F | 1600.0 | 1603.6 | 7.1 | 210 | | | |
| | 410 | SGMR | 4 S/F | 1602.0 | 1603.6 | 2.1D | 32 | | | |
| | 606 | SGMR | 4 S/F | 1602.0 | 1602.8 | 2.1D | 21 | | | |
| | 1415 | SGMR | 8 S | 1602.1 | 1602.8 | 1.0D | 05 | | | |
| | 930 | BORD | 46 C | 1602.3 | 1602.8 | 1.2 | 14.0 | 3.0 | | |
| | 2800 | OTTA | 1 S | 1605.0 | 1606 | 3.5 | 2.6 | 1.2 | | |
| | 9400 | HUAN | S | 1740.3 | 1830.3 | 76.3 | 8.4 | 2.2 | | 0 |
| | 2800 | OTTA | 20 GRF | 1810.0 | 1818.5 | 40.0 | 5.8 | 2.0 | | |
| 15 | 208 | VORO | 44 NS | 0000.0E | | 240.0D | | 8.0 | | |
| | 100 | HIRA | 43 NS | 0314.0 | 0500 | 300.0D | 20.0 | 4.0 | | 0 |
| | 127 | TORN | 44 NS | 0700.0E | 1421.5 | 500.0D | 140.0 | 2.0 | | V1 |
| | 260 | ONDR | 44 NS | 0821.0E | | 373.0D | 70.0 | 2.0 | | |
| | 200 | GORK | 43 NS | 0955.0 | | 113.0 | | 5.0 | | |
| | 245 | SGMR | 43 NS | 1145.0 | 1204.6 | 625.0 | 130 | | | |
| | 200 | HIRA | 44 NS | 2123.0E | 0015 | 650.0D | 20.0 | 5.0 | | WL |
| | 245 | PALE | 43 NS | 2312.6 | 0304.6 | 301.4D | 42 | | | |
| | 245 | LEAR | 8 S | 0035.8 | 0036.3 | 1.2 | 190 | | | |
| | 1000 | TYKW | 5 S | 0036.0 | 0036.4 | 1.0 | 1.5 | .5 | | |
| | 9400 | TYKW | 5 S | 0050.0 | 0051.1 | 3.0 | 31.0 | 12.0 | | |
| | 3750 | TYKW | 45 C | 0050.0 | 0051.3 | 7.0 | 42.0 | 12.0 | | |
| | 2930 | VORO | 3 S | 0050.6 | 0052 | 5.0 | 35.0 | | | |
| | 4995 | LEAR | 4 S/F | 0050.3 | 0051.0 | 2.5 | 58 | | | |
| | 4995 | PALE | 8 S | 0050.3 | 0051.1 | 1.8 | 50 | | | |
| | 15400 | LEAR | 8 S | 0050.5 | 0051.6 | 1.1 | 10 | | | |
| | 8800 | LEAR | 4 S/F | 0050.5 | 0051.0 | 2.3 | 44 | | | |
| | 2000 | TYKW | 5 S | 0050.5 | 0051.7 | 2.5 | 4.0 | 1.5 | | |
| | 2695 | LEAR | 8 S | 0050.6 | 0051.3 | 1.5 | 21 | | | |
| | 8800 | PALE | 8 S | 0050.6 | 0051.0 | .7 | 38 | | | |
| | 2695 | PALE | 8 S | 0050.8 | 0051.6 | 1.0 | 18 | | | |
| | 9400 | TYKW | 29 PBI | 0053.0 | | 20.0 | 6.0 | 3.0 | | |
| | 3750 | TYKW | 29 PBI | 0057.0 | | 10.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 21 GRF | 0125.0 | 0213 | 110.0 | 7.0 | 2.5 | | |
| | 2930 | VORO | 23 GRF | 0140.0 | 0150 | 20.0 | 35.0 | | | |
| | 2000 | TYKW | 20 GRF | 0210.0 | 0224 | 50.0 | 4.0 | 1.0 | | |
| | 8800 | PALE | 8 S | 0243.5 | 0244.1 | 1.5 | 28 | | | |
| | 4995 | PALE | 8 S | 0243.5 | 0244.1 | 1.5 | 16 | | | |
| | 9400 | TYKW | 5 S | 0243.7 | 0244.1 | 1.5 | 16.0 | 6.0 | | |
| | 3750 | TYKW | 5 S | 0243.7 | 0244.2 | 1.5U | 5.0 | 2.0 | | |
| | 4995 | LEAR | 8 S | 0243.8 | 0244.3 | 2.0 | 13 | | | |
| | 8800 | LEAR | 8 S | 0243.8 | 0244.1 | .8 | 15 | | | |
| | 4995 | LEAR | 8 S | 0244.0 | 0244.1 | .1 | 13 | | | |
| | 3750 | TYKW | 5 S | 0448.0 | 0451 | 15.0 | 2.0 | .7 | | |
| | 3750 | TYKW | 20 GRF | 0450.0 | 0500 | 90.0 | 2.0 | 1.0 | | |
| | 200 | GORK | 41 F | 0641.2 | 0643.3 | 5.9 | 60.0D | | | |
| | 200 | GORK | | 0641.2 | 0646.3 | | 40.0 | | | |
| | 100 | GORK | 41 F | 0641.3 | 0641.4 | 5.0 | 180.0D | | | |
| | 100 | GORK | | 0641.3 | 0646.3 | | 180.0D | | | |
| | 100 | GORK | | 0641.3 | 0643.3 | | 180.0D | | | |
| | 245 | LEAR | 8 S | 0642.5 | 0642.6 | .8 | 200 | | | |
| | 204 | IZMI | 42 F | 0707.0 | 0709.7 | 8.7 | 223.0 | | | |
| | 200 | HIRA | 42 SER | 0707.4 | 0709.3 | 8.4 | 400.0 | | | 0 |
| | 200 | GORK | | 0707.4 | 0710.0 | | 60.0D | | | |
| | 200 | GORK | 41 F | 0707.4 | 0708.5 | 9.4 | 60.0D | | | |
| | 245 | LEAR | 47 GB | 0708.0 | 0708.1 | 1.8 | 700 | | | |
| | 100 | GORK | | 0708.1 | 0722.9 | | | | | |
| | 100 | GORK | | 0708.1 | 0714.3 | | 185.0D | | | |
| | 100 | GORK | | 0708.1 | 0710.0 | | 185.0D | | | |
| | 100 | GORK | 41 F | 0708.1 | 0708.3 | 15.6 | 185.0D | | | |
| | 410 | LEAR | 8 S | 0712.0 | 0712.1 | .3 | 17 | | | |
| | 245 | LEAR | 8 S | 0712.0 | 0712.1 | .5 | 55 | | | |
| | 606 | LEAR | 8 S | 0712.0 | 0712.1 | .3 | 10 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 15 | 8400 | BERN | 1 | S | 0743.0 | 0744.6 | 3.0 | 20.0 | | | |
| | 536 | ONDR | 41 | F | 1044.5 | | 62.0 | 10.0 | 4.0 | | |
| | 5200 | BERN | 20 | GRF | 1110.0 | 1208.6 | 120.0 | 10.0 | | | |
| | 3200 | BERN | 20 | GRF | 1110.0 | 1201.6 | 120.0 | .0 | | | ONLY PAPER REC |
| | 127 | TORN | 42 | SER | 1200.6 | 1208.5 | 9.3 | 300.0 | 30.0 | | |
| | 536 | ONDR | 45 | C | 1211.6 | 1211.8 | 3.5 | 48.0 | 2.0 | | |
| | 5200 | BERN | 20 | GRF | 1510.0 | 1515.2 | 20.0 | 9.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 20 | GRF | 1510.0 | 1515.2 | 20.0 | .0 | | | ONLY PAPER REC |
| | 930 | BORD | 3 | S | 1510.0 | 1510.4 | 1.6 | 20.0 | 5.0 | | |
| | 2800 | OTTA | 1 | S | 1510.0 | 1510.6 | 2.0 | 5.4 | 2.5 | | |
| | 2800 | OTTA | 23 | GRF | 1730.0 | 1907 | 250.0 | 11.8 | 6.0 | | |
| | 410 | SGMR | 8 | S | 1819.8 | 1820.1 | .8 | 13 | | | |
| | 606 | PALE | 8 | S | 1819.8 | 1820.3 | .8 | 25 | | | |
| | 410 | PALE | 8 | S | 1819.8 | 1820.1 | .8 | 15 | | | |
| | 606 | SGMR | 8 | S | 1820.0 | 1820.3 | .6D | 54 | | | |
| | 9400 | HUAN | | S | 1822.6 | 1916.0 | 102.0 | 14.5 | 7.8 | | 0 |
| | 2800 | OTTA | 1 | S | 1838.3 | 1839 | 1.5 | 4.2 | 2.1 | | |
| | 245 | PALE | 8 | S | 1848.0 | 1848.1 | 1.0 | 28 | | | |
| | 2695 | SGMR | 4 | S/F | 1850.1 | 1854.8 | 8.9 | 11 | | | |
| | 1415 | SGMR | 4 | S/F | 1851.1 | 1855.0 | 8.0D | 13 | | | |
| | 1415 | PALE | 4 | S/F | 1851.6 | 1854.8 | 8.8 | 27 | | | |
| | 606 | PALE | 4 | S/F | 1852.1 | 1855.1 | 8.0 | 13 | | | |
| | 2695 | PALE | 4 | S/F | 1852.1 | 1855.0 | 4.5 | 25 | | | |
| | 410 | PALE | 4 | S/F | 1852.6 | 1852.1 | 8.5 | 11 | | | |
| | 606 | SGMR | 4 | S/F | 1852.8 | 1855.1 | 5.3D | 17 | | | |
| | 245 | PALE | 8 | S | 1854.3 | 1855.0 | 1.7 | 28 | | | |
| | 2800 | OTTA | 1 | S | 1854.3 | 1855 | 2.0 | 5.0 | 2.5 | | |
| | 245 | PALE | 8 | S | 1950.0 | 1950.3 | .6 | 73 | | | |
| | 245 | PALE | 8 | S | 2032.3 | 2033.1 | 1.0 | 37 | | | |
| | 9400 | HUAN | | S | 2111.3 | 2112.2 | 1.8 | 22.6 | 10.7 | | 0 |
| | 15400 | PALE | 8 | S | 2111.6 | 2112.3 | 1.0 | 20 | | | |
| | 4995 | PALE | 8 | S | 2111.8 | 2112.3 | .8 | 25 | | | |
| | 2695 | PALE | 8 | S | 2111.8 | 2112.1 | 1.0 | 10 | | | |
| | 8800 | PALE | 8 | S | 2111.8 | 2112.3 | .8 | 38 | | | |
| | 2800 | OTTA | 1 | S | 2112.0 | 2112.3 | 1.5 | 8.8 | 3.0 | | |
| | 245 | PALE | 8 | S | 2247.8 | 2248.3 | .7 | 18 | | | |
| 16 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 8.0 | | |
| | 200 | GORK | 44 | NS | 0615.0E | | 405.0D | | 15.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1412.5 | 500.0D | 160.0 | 91.0 | | V1 |
| | 260 | ONDR | 44 | NS | 0820.0E | | 393.0D | 101.0 | 31.0 | | |
| | 100 | GORK | 43 | NS | 0830.0 | | 270.0D | | 10.0 | | |
| | 204 | IZMI | 44 | NS | 0850.0E | | 300.0D | 190.0 | | | |
| | 245 | SGMR | 43 | NS | 1143.0 | 1339.3 | 629.0D | 680 | | | |
| | 245 | PALE | 43 | NS | 1719.0 | 1950.6 | 656.0D | 370 | | | |
| | 200 | HIRA | 44 | NS | 2122.0E | 0229 | 650.0D | 170.0 | 25.0 | | ML |
| | 100 | HIRA | 44 | NS | 2122.0E | 0122 | 340.0D | 210.0 | 15.0 | | |
| | 245 | LEAR | 43 | NS | 2231.6 | 0229.0 | 734.0D | 160 | | | |
| | 245 | PALE | 8 | S | 0013.5 | 0013.8 | .5 | 330 | | | |
| | 3750 | TYKW | 21 | GRF | 0030.0 | 0100 | 100.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 5 | S | 0125.0 | 0126.2 | 3.0 | 12.0 | 4.0 | | |
| | 3750 | TYKW | 29 | PBI | 0128.0 | | 10.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0239.5 | 0240.2 | 3.5 | 5.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0239.5 | 0240 | 1.5 | 2.0 | 1.0 | | |
| | 15400 | PALE | 8 | S | 0301.0 | 0301.6 | 1.1 | 30 | | | |
| | 410 | PALE | 8 | S | 0317.3 | 0317.6 | .3 | 53 | | | |
| | 3750 | TYKW | 20 | GRF | 0358.0 | 0404 | 35.0 | 1.5 | .5 | | |
| | 245 | LEAR | 8 | S | 0418.5 | 0418.6 | .5 | 99 | | | |
| | 3750 | TYKW | 21 | GRF | 0540.0 | 0558 | 80.0 | 3.0 | 1.0 | | |
| | 9400 | TYKW | 45 | C | 0546.5 | 0547.7 | 2.0 | 8.0 | 2.0 | | |
| | 3750 | TYKW | 45 | C | 0546.5 | 0547.7 | 6.5 | 14.0 | 2.5 | | |
| | 4995 | LEAR | 4 | S/F | 0546.6 | 0547.8 | 2.2 | 15 | | | |
| | 2000 | TYKW | 45 | C | 0546.7 | 0547.8 | 3.3 | 16.0 | 7.0 | | |
| | 1000 | TYKW | 45 | C | 0546.8 | 0547.3 | 6.0 | 4.5 | 1.5 | | |
| | 1415 | LEAR | 8 | S | 0546.8 | 0547.8 | 1.7 | 11 | | | |
| | 8800 | LEAR | 8 | S | 0546.8 | 0547.8 | 1.5 | 11 | | | |
| | 2695 | LEAR | 8 | S | 0546.8 | 0547.6 | 1.8 | 21 | | | |
| | 2000 | TYKW | 29 | PBI | 0550.0 | | 40.0 | 2.5 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0550.8 | 0551.2 | 1.5 | 18.0 | 3.0 | | |
| | 4995 | LEAR | 8 | S | 0550.8 | 0551.1 | 1.0 | 11 | | | |
| | 8800 | LEAR | 8 | S | 0551.0 | 0551.1 | .6 | 30 | | | |
| | 3750 | TYKW | 5 | S | 0622.0 | 0623.3 | 4.0 | 2.5 | .7 | | |
| | 5200 | BERN | 1 | S | 0839.3 | 0840.3 | 1.5 | 8.0 | | | |
| | 8400 | BERN | 1 | S | 0839.9 | 0840.3 | 1.5 | 33.0 | | | |
| | 4995 | LEAR | 8 | S | 0840.1 | 0840.3 | .7 | 10 | | | |
| | 8800 | LEAR | 8 | S | 0840.1 | 0840.3 | .7 | 21 | | | |
| | 204 | IZMI | 4 | S/F | 1057.8 | 1058.7 | 1.1 | 970.0 | | | |
| | 430 | KRAK | 27 | RF | 1107.0E | 1140.3 | 90.0 | 90.0 | 28.0 | | |
| | 9100 | GORK | 2 | S | 1212.7 | 1213.5 | 5.7 | 14.0 | | | |
| | 5200 | BERN | 21 | GRF | 1214.4 | 1219.3 | 50.0 | 9.0 | | | |
| | 11800 | BERN | 21 | GRF | 1214.7 | 1216.5 | 24.0 | 16.0 | | | |
| | 8400 | BERN | 21 | GRF | 1214.7 | 1216.5 | 33.0 | 20.0 | | | |
| | 3200 | BERN | 21 | GRF | 1215.0 | 1219.2 | 50.0 | .0 | | | ONLY PAPER REC |
| | 10715 | DWIN | 1 | S | 1215.0 | 1216 | 2.0 | 20.0 | 10.0 | | |
| | 2650 | DWIN | 2 | S/F | 1215.0 | 1216 | 2.0 | 40.0 | 15.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 16 | 9400 | HUAN | | S | 1215.4 | 1216.4 | 2.2 | 17.0 | 7.9 | | 0 |
| | 536 | ONDR | 45 | C | 1216.0 | 1216 | 3.0 | 48.0 | 2.0 | | |
| | 810 | KRAK | 42 | SER | 1216.3 | 1216.3 | 2.3 | 46.0 | | | |
| | 9400 | HUAN | | PBI | 1217.6 | 1217.6 | 14.1 | 6.8 | 2.6 | | 0 |
| | 100 | GORK | | | 1218.2 | 1219.7 | | 770.0 | | | |
| | 100 | GORK | 46 | C | 1218.2 | 1218.4 | 2.0 | 170.0D | | | |
| | 930 | BORD | 41 | F | 1220.0 | 1220.2 | .3 | 14.0 | 2.0 | | |
| | 3200 | BERN | 20 | GRF | 1428.0 | 1433.1 | 52.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 20 | GRF | 1428.4 | 1433.1 | 51.0 | 16.0 | | | |
| | 8400 | BERN | 20 | GRF | 1431.1 | 1509.0 | 48.0 | 12.0 | | | |
| | 9400 | HUAN | | S | 1713.1 | 1737.0 | 60.7 | 13.6 | 3.1 | | 0 |
| | 2800 | OTTA | 21 | GRF | 1714.0 | 1720 | 145.0 | 8.0 | 3.4 | | |
| | 606 | SGMR | 8 | S | 1714.1 | 1715.0 | 2.0D | 13 | | | |
| | 1415 | SGMR | 8 | S | 1714.3 | 1715.6 | 1.7 | 13 | | | |
| | 2800 | OTTA | 1 | S | 1715.0 | 1715.5 | 1.0 | 6.6 | 3.3 | | |
| | 2800 | OTTA | 3 | S | 1734.0 | 1735.3 | 4.0 | 66.4 | 12.0 | | |
| | 9400 | HUAN | | S | 1734.5 | 1735.4 | 1.7 | 74.8 | 30.6 | | R |
| | 410 | SGMR | 4 | S/F | 1734.8 | 1735.6 | 2.3D | 48 | | | |
| | 1415 | SGMR | 4 | S/F | 1734.8 | 1735.5 | 2.2D | 38 | | | |
| | 2695 | SGMR | 4 | S/F | 1734.8 | 1735.5 | 2.3D | 50 | | | |
| | 8800 | SGMR | 8 | S | 1735.0 | 1735.5 | 1.1D | 13 | | | |
| | 4995 | SGMR | 8 | S | 1735.0 | 1735.5 | 2.0D | 93 | | | |
| | 245 | SGMR | 47 | GB | 1735.0 | 1735.3 | 2.1D | 2300 | | | |
| | 15400 | SGMR | 8 | S | 1735.6 | 1735.3 | 1.1 | 13 | | | |
| | 606 | SGMR | 8 | S | 1735.1 | 1735.8 | 1.7D | 16 | | | |
| | 15400 | PALE | 47 | GB | 1740.3 | 1740.8 | 1.5 | 43 | | | |
| | 8800 | PALE | 8 | S | 1740.5 | 1740.6 | 1.1 | 30 | | | |
| | 1415 | PALE | 8 | S | 1740.6 | 1741.0 | .2 | 13 | | | |
| | 2800 | OTTA | 20 | GRF | 1955.0 | 2040 | 105.0 | 3.4 | 1.7 | | |
| | 3750 | TYKW | 21 | GRF | 2350.0 | 0004 | 65.0 | 4.0 | 2.0 | | |
| 17 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 15.0 | | |
| | 410 | LEAR | 43 | NS | 0158.0 | 0550.8 | 527.0D | 38 | | | |
| | 200 | GORK | 44 | NS | 0535.0E | | 248.0D | | 5.0 | | |
| | 260 | ONDR | 44 | NS | 0810.0E | | 410.0D | 34.0 | | | |
| | 127 | TORN | 43 | NS | 0900.0 | 1119.8 | 380.0 | 30.0 | 1.0 | | V0 |
| | 410 | PALE | 43 | NS | 1719.0 | 1915.6 | 656.0D | 25 | | | |
| | 245 | PALE | 43 | NS | 1719.0 | 2154.8 | 656.0D | 220 | | | |
| | 245 | SGMR | 43 | NS | 1951.3 | 2008.3 | 141.7D | 67 | | | |
| | 200 | HIRA | 44 | NS | 2121.0E | 0014 | 650.0D | 45.0 | 10.0 | | ML |
| | 245 | LEAR | 43 | NS | 2232.0 | 0015.3 | 732.0D | 150 | | | |
| | 3750 | TYKW | 5 | S | 0015.0 | 0016.4 | 5.0 | 4.0 | 1.0 | | |
| | 245 | LEAR | 8 | S | 0310.1 | 0310.5 | .7 | 48 | | | |
| | 410 | LEAR | 8 | S | 0310.3 | 0310.5 | .3 | 78 | | | |
| | 3750 | TYKW | 21 | GRF | 0350.0 | 0434 | 170.0 | 7.0 | 3.0 | | |
| | 9400 | TYKW | 5 | S | 0353.0 | 0353.3 | 1.0 | 8.0 | 3.0 | | |
| | 9400 | TYKW | 21 | GRF | 0410.0 | 0430 | 60.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0410.0 | 0411.0 | 2.0 | 26.0 | 7.0 | | |
| | 3750 | TYKW | 5 | S | 0410.0 | 0410.7 | 2.0 | 18.0 | 3.0 | | |
| | 17000 | NOBE | 1 | S | 0410.4 | 0411.0 | .7 | 9.0 | | | 0 |
| | 15400 | LEAR | 8 | S | 0410.5 | 0410.0 | .6 | 20 | | | |
| | 4995 | LEAR | 8 | S | 0410.6 | 0410.6 | .2 | 20 | | | |
| | 8800 | LEAR | 8 | S | 0410.6 | 0411.0 | .5 | 36 | | | |
| | 2000 | TYKW | 20 | GRF | 0415.0 | 0430 | 70.0 | 1.5 | .7 | | |
| | 3750 | TYKW | 20 | GRF | 0535.0 | 0548 | 60.0 | 4.0 | 2.0 | | |
| | 9400 | TYKW | 20 | GRF | 0540.0 | 0548 | 60.0 | 5.0 | 2.5 | | |
| | 8800 | LEAR | 8 | S | 0715.3 | 0715.5 | .5 | 45 | | | |
| | 15400 | LEAR | 8 | S | 0715.3 | 0715.5 | .5 | 18 | | | |
| | 950 | GORK | 2 | S/F | 0719.0 | 0719.2 | 1.2 | 3.0 | | | |
| | 650 | GORK | 1 | S | 0719.1 | 0719.6 | 1.4 | 5.0 | | | |
| | 3750 | TYKW | 45 | C | 0726.5 | 0727.8 | 4.5 | 4.0 | 1.5 | | |
| | 3100 | CRIM | 20 | GRF | 0727.0 | 0728.5 | 22.0 | 5.0 | 2.0 | | |
| | 9400 | TYKW | 5 | S | 0729.5 | 0729.9 | 1.5 | 12.0 | 4.0 | | |
| | 3100 | CRIM | 20 | GRF | 1056.0 | 1056.5 | 18.0 | 4.0 | 1.0 | | |
| | 2800 | OTTA | 20 | GRF | 1310.0 | 1330 | 90.0 | 7.8 | 3.9 | | |
| | 536 | ONDR | 42 | SER | 1314.8 | 1444.8 | 90.0 | 32.0 | | | |
| | 2800 | OTTA | 240 | R | 1530.0 | 1550 | 20.0 | 3.8 | 1.9 | | |
| | 2800 | OTTA | 22 | GRF | 1555.0 | 1605 | 110.0 | 4.6 | 3.3 | | |
| | 2800 | OTTA | 21 | GRF | 1825.0 | 1915 | 330.0D | 19.4 | | | |
| | 2800 | OTTA | 1 | S | 1829.0 | 1830 | 10.0 | 3.8 | 1.6 | | |
| | 2800 | OTTA | 1 | S | 1850.0 | 1851.5 | 4.0 | 2.4 | 1.2 | | |
| | 9400 | HUAN | | S | 1911.7 | 1940.7 | 57.5 | 14.4 | 9.2 | | 0 |
| | 15400 | SGMR | 4 | S/F | 2145.3 | 2146.5 | 3.0 | 370 | | | |
| | 8800 | PALE | 47 | GB | 2145.3 | 2146.8 | 17.2 | 1000 | | | |
| | 9400 | HUAN | | C | 2145.4 | 2146.7 | 12.3 | 1060.6 | 222.6 | | R |
| | 15400 | PALE | 47 | GB | 2145.5 | 2146.6 | 22.8 | 1300 | | | |
| | 2800 | OTTA | 4 | S/F | 2145.5 | 2147 | 4.5 | 295.0 | 76.0 | | |
| | 4995 | PALE | 4 | S/F | 2145.6 | 2146.8 | 13.2 | 380 | | | |
| | 2695 | PALE | 4 | S/F | 2145.8 | 2146.8 | 12.3 | 300 | | | |
| | 606 | SGMR | 4 | S/F | 2146.0 | 2146.5 | 4.0D | 190 | | | |
| | 1415 | PALE | 4 | S/F | 2146.1 | 2146.8 | 3.2 | 180 | | | |
| | 606 | PALE | 8 | S | 2146.3 | 2146.6 | .7 | 139 | | | |
| | 245 | PALE | 8 | S | 2146.6 | 2147.1 | .7 | 55 | | | |
| | 245 | SGMR | 8 | S | 2146.6 | 2147.1 | 1.2D | 60 | | | |
| | 2800 | OTTA | 30 | PBI | 2150.0 | 2150 | 16.0 | 19.4 | 9.7 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 17 | 2800 | OTTA | 3 | S | 2154.0 | 2156.2 | 5.0 | 34.0 | 14.2 | | |
| | 100 | HIRA | | | 2154.8 | 2155 | | 10000.0 | | | 0 |
| | 100 | HIRA | | C | 2154.8 | 2157.5 | 4.7 | 90000.0 | 1800.0 | | 0 |
| | 200 | HIRA | 46 | C | 2155.0U | 2157.2 | 9.3U | 1400.0 | 200.0U | | WR |
| | 9400 | HUAN | | PBI | 2157.7 | 2157.7 | 18.6 | 32.4 | 14.0 | | 0 |
| 18 | 410 | LEAR | 43 | NS | 0141.0 | 0204.1 | 543.0D | 22 | | | |
| | 200 | GORK | 44 | NS | 0540.0E | | 296.0D | | 5.0 | | |
| | 606 | LEAR | 43 | NS | 0807.1 | 0938.3 | 156.9D | 85 | | | |
| | 260 | ONDR | 44 | NS | 0810.0E | | 410.0D | 26.0 | | | |
| | 127 | TORN | 43 | NS | 1056.0 | 1108.4 | 244.0 | 630.0 | 1.0 | | V1,DISTURBED |
| | 200 | HIRA | 44 | NS | 2121.0E | 0041 | 400.0D | 10.0 | 3.0 | | WL |
| | 410 | LEAR | 43 | NS | 2232.0 | 2347.3 | 731.0D | 23 | | | |
| | 245 | LEAR | 43 | NS | 2232.0 | 0021.8 | 731.0D | 51 | | | |
| | 3750 | TYKW | 21 | GRF | 0020.0 | 0158 | 240.0 | 18.0 | 9.0 | | |
| | 2000 | TYKW | 20 | GRF | 0040.0 | 0205 | 180.0 | 5.0 | 2.5 | | |
| | 1000 | TYKW | 20 | GRF | 0100.0 | 0150 | 100.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 21 | GRF | 0105.0 | 0150 | 150.0 | 11.0 | 5.0 | | |
| | 3750 | TYKW | 5 | S | 0128.5 | 0129.8 | 3.0 | 4.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0129.0 | 0129.5 | 2.0 | 4.0 | 1.5 | | |
| | 8800 | LEAR | 4 | S/F | 0134.0E | 0143.0 | 23.0 | 10 | | | |
| | 4995 | LEAR | 4 | S/F | 0135.0E | 0143.0 | 22.0 | 04 | | | |
| | 1000 | TYKW | 45 | C | 0341.6 | 0341.6 | .7 | 101.0 | 50.0 | | |
| | 3750 | TYKW | 21 | GRF | 0430.0 | 0615 | 170.0 | 14.0 | 6.0 | | |
| | 2000 | TYKW | 21 | GRF | 0440.0 | 0613 | 160.0 | 9.0 | 3.0 | | |
| | 2000 | TYKW | 5 | S | 0540.0 | 0543.4 | 10.0 | 5.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0540.6 | 0543.4 | 10.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0540.0 | 0543 | 10.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 20 | GRF | 0550.0 | 0615 | 90.0 | 11.0 | .5 | | |
| | 1000 | TYKW | 5 | S | 0553.4 | 0553.6 | .6 | 11.0 | 2.0 | | |
| | 410 | LEAR | 8 | S | 0553.5 | 0553.8 | .6 | 06 | | | |
| | 606 | LEAR | 8 | S | 0553.5 | 0553.8 | .5 | 05 | | | |
| | 245 | LEAR | 8 | S | 0553.6 | 0553.8 | .2 | 11 | | | |
| | 536 | ONDR | 42 | SER | 0935.0 | 1026.7 | 53.0 | 71.0 | | | |
| | 810 | KRAK | 42 | SER | 1023.7 | 1026.7 | 3.5 | 33.0 | | | |
| | 930 | BORD | 41 | F | 1026.5 | 1026.6 | .8 | 21.0 | 2.0 | | |
| | 430 | KRAK | 42 | SER | 1053.2 | 1107.3 | 13.0 | 56.0 | | | |
| | 9100 | GORK | 1 | S | 1053.5 | 1053.6 | .7 | 28.0 | 14.0 | | |
| | 3200 | BERN | 21 | GRF | 1102.0 | 1107.0 | 45.0 | .0 | | | ONLY PAPER REC |
| | 930 | BORD | 46 | C | 1103.0 | 1104.4 | 10.0 | 223.0 | 9.0 | | |
| | 5200 | BERN | 21 | GRF | 1103.1 | 1107.0 | 45.0 | 30.0 | | | |
| | 808 | ONDR | 45 | C | 1103.2 | 1104.6 | 7.0 | 55.0 | 11.0 | | |
| | 8400 | BERN | 21 | GRF | 1103.3 | 1106.8 | 45.0 | 24.0 | | | |
| | 9100 | GORK | 22 | GRF | 1104.0U | 1106.7 | 6.5U | 20.0 | | | |
| | 2950 | GORK | 20 | GRF | 1104.7U | 1106.7 | 43.0U | 10.0 | 5.0 | | |
| | 950 | GORK | 46 | C | 1104.7U | 1104.7 | 8.4U | 59.0 | | | |
| | 950 | GORK | | | 1104.7 | 1107.0 | | 83.0 | | | |
| | 810 | KRAK | 3 | S | 1105.5 | 1107.0 | 1.2 | 37.0 | 12.0 | | |
| | 11800 | BERN | 21 | GRF | 1105.7 | 1107.0 | 45.0 | 14.0 | | | |
| | 3200 | BERN | 3 | S | 1333.0 | 1334.0 | 12.0 | .0 | | | ONLY PAPER REC |
| | 2650 | DWIN | 1 | S | 1333.0 | 1334 | 4.0 | 40.0 | 15.0 | | |
| | 10715 | DWIN | 1 | S | 1333.0 | 1334 | 2.0 | 40.0 | 20.0 | | |
| | 5200 | BERN | 3 | S | 1333.0 | 1334.0 | 12.0 | 61.0 | | | |
| | 8400 | BERN | 3 | S | 1333.6 | 1334.0 | 4.0 | 67.0 | | | |
| | 11800 | BERN | 3 | S | 1333.2 | 1334.0 | 3.0 | 43.0 | | | |
| | 810 | KRAK | 42 | SER | 1333.2 | 1334.0 | 6.0 | 100.0 | | | |
| | 19600 | BERN | 3 | S | 1333.3 | 1334.0 | 3.0 | 20.0 | | | |
| | 9400 | HUAN | | S | 1333.6 | 1334.1 | 1.5 | 29.0 | 11.3 | | 0 |
| | 2800 | OTTA | 3 | S | 1333.8 | 1334.2 | 2.2 | 39.0 | 9.8 | | |
| | 808 | ONDR | 42 | SER | 1334.0 | 1354.8 | 27.0 | 68.0 | | | |
| | 536 | ONDR | 42 | SER | 1334.0 | 1355.6 | 26.0 | 77.0 | | | |
| | 2800 | OTTA | 29 | PBI | 1336.0 | 1336 | 6.0 | 3.8 | 1.8 | | |
| | 9400 | HUAN | | S | 1337.4 | 1338.5 | 2.0 | 10.2 | 3.2 | | 0 |
| | 430 | KRAK | 42 | SER | 1337.5 | 1359.2 | 22.0 | 43.0 | | | |
| | 2800 | OTTA | 21 | GRF | 1352.0 | 1356 | 60.0 | 10.8 | | | |
| | 8400 | BERN | 3 | S | 1352.3 | 1355.2 | 12.0 | 71.0 | | | |
| | 19600 | BERN | 3 | S | 1352.4 | 1355.1 | 9.0 | 50.0 | | | |
| | 11800 | BERN | 3 | S | 1352.4 | 1355.2 | 10.0 | 50.0 | | | |
| | 3200 | BERN | 3 | S | 1352.5 | 1355.1 | 15.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 3 | S | 1352.6 | 1355.2 | 15.0 | 97.0 | | | |
| | 810 | KRAK | 42 | SER | 1352.8 | 1354.7 | 7.0 | 220.0 | | | |
| | 2650 | DWIN | 3 | S | 1353.0 | 1355 | 7.0 | 80.0 | 30.0 | | |
| | 606 | SGMR | 47 | GB | 1353.0 | 1355.1 | 5.0D | 920 | | | |
| | 9400 | HUAN | | A | 1353.5 | 1355.2 | 2.6 | 41.0 | 20.2 | | 0 |
| | 10715 | DWIN | 2 | S/F | 1354.0 | 1355 | 2.0 | 40.0 | 20.0 | | |
| | 15400 | SGMR | 4 | S/F | 1354.6 | 1355.1 | 5.0 | 37 | | | |
| | 2800 | OTTA | 3 | S | 1354.8 | 1355.3 | 3.0 | 87.0 | 22.0 | | |
| | 245 | SGMR | 4 | S/F | 1455.5 | 1456.3 | 2.3D | 170 | | | |
| | 606 | SGMR | 47 | GB | 1456.5 | 1456.6 | .1 | 660 | | | |
| | 808 | ONDR | 8 | S | 1456.6 | 1456.6 | .2 | 50.0 | | | |
| | 245 | SGMR | 8 | S | 1503.6 | 1504.0 | .5 | 35 | | | |
| | 3200 | BERN | 3 | S | 1510.1 | 1511.6 | 4.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 3 | S | 1510.1 | 1511.7 | 4.0 | 19.0 | | | |
| | 11800 | BERN | 3 | S | 1510.2 | 1511.7 | 3.0 | 20.0 | | | |
| | 8400 | BERN | 3 | S | 1511.0 | 1511.6 | 3.0 | 24.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | 2800 | OTTA | 8 | S | 1511.5 | 1511.6 | .6 | 5.8 | 2.0 | | |
| | 2800 | OTTA | 1 | S | 1517.5 | 1518 | 1.0 | 5.0 | 1.3 | | |
| | 2800 | OTTA | 23 | GRF | 1530.6 | 1620 | 130.0 | 9.0 | 2.8 | | |
| | 5200 | BERN | 3 | S | 1620.0 | 1620.8 | 4.0 | 11.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 3 | S | 1620.0 | 1620.8 | 4.0 | .0 | | | ONLY PAPER REC |
| | 9400 | HUAN | | S | 1620.6 | 1621.3 | 1.7 | 8.5 | 5.1 | | 0 |
| | 2800 | OTTA | 2 | S/F | 1620.9 | 1621 | 1.5 | 9.0 | 2.8 | | |
| | 2800 | OTTA | 46F | C | 1636.0 | 1636.7 | 6.0 | 6.6 | | | |
| | 9400 | HUAN | | S | 1641.0 | 1641.3 | 1.8 | 47.8 | 21.1 | | R |
| | 245 | SGMR | 8 | S | 1707.8 | 1708.1 | .8 | 119 | | | |
| | 2800 | OTTA | 8 | S | 1730.5 | 1730.9 | .5 | 2.8 | | | |
| | 2800 | OTTA | 20 | GRF | 1750.0 | 1810 | 33.0 | 2.8 | 1.4 | | |
| | 245 | SGMR | 8 | S | 2038.1 | 2038.3 | .5 | 67 | | | |
| 19 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 9.0 | | |
| | 127 | TORN | 43 | NS | 0900.0 | | 380.0 | | 2.0 | | V0 |
| | 3750 | TYKW | 28 | PRE | 0040.0 | 0308.1 | 165.0 | 26.0 | 8.0 | | |
| | 2000 | TYKW | 28 | PRE | 0140.0 | 0308.2 | 105.0 | 11.0 | 5.0 | | |
| | 9400 | TYKW | 28 | PRE | 0145.0 | 0255.4 | 100.0 | 25.0 | 8.0 | | |
| | 1000 | TYKW | 28 | PRE | 0240.0 | 0325.0 | 50.0 | 15.0 | 1.5 | | |
| | 8800 | LEAR | 4 | S/F | 0245.0 | 0251.3 | 13.0 | 13 | | | |
| | 15400 | LEAR | 4 | S/F | 0247.0 | 0255.3 | 12.1 | 17 | | | |
| | 4995 | PALE | 4 | S/F | 0247.3 | 0255.6 | 8.3 | 17 | | | |
| | 17000 | NOBE | 20 | GRF | 0247.6 | 0257.1 | 27.0 | 12.0 | | | 0 |
| | 15400 | PALE | 4 | S/F | 0249.1 | 0256.1 | 7.2 | 24 | | | |
| | 2695 | PALE | 4 | S/F | 0249.1 | 0255.6 | 6.2 | 13 | | | |
| | 606 | LEAR | 47 | GB | 0250.0 | 0255.5 | 5.8 | 49 | | | |
| | 606 | PALE | 4 | S/F | 0250.5 | 0255.3 | 5.3 | 41 | | | |
| | 35000 | NAGO | 20 | GRF | 0251.0 | 0306 | 44.0 | 29.0 | | | |
| | 410 | LEAR | 4 | S/F | 0252.5 | 0255.5 | 3.5 | 35 | | | |
| | 4995 | LEAR | 8 | S | 0307.8 | 0308.1 | .5 | 07 | | | |
| | 606 | LEAR | 8 | S | 0307.8 | 0308.0 | 1.7 | 71 | | | |
| | 2695 | LEAR | 8 | S | 0307.8 | 0308.1 | 1.5 | 08 | | | |
| | 17000 | NOBE | 28 | PRE | 0323.5 | 0333.8 | 12.3 | 11.0 | | | 0 |
| | 1415 | LEAR | 4 | S/F | 0324.6 | 0324.6 | 2.2 | 70 | | | |
| | 1415 | PALE | 8 | S | 0324.6 | 0324.6 | .2 | 72 | | | |
| | 3750 | TYKW | 45 | C | 0325.0 | 0337.6 | 45.0 | 385.0 | 90.0 | | |
| | 2000 | TYKW | 45 | C | 0325.0 | 0337.6 | 45.0 | 310.0 | 60.0 | | |
| | 9400 | TYKW | 47 | GB | 0325.0 | 0337.5 | 40.0 | 825.0 | 150.0 | | |
| | 1000 | TYKW | 45 | C | 0330.0 | 0400.1 | 60.0 | 340.0 | 65.0 | | |
| | 2930 | VORO | 45 | C | 0330.0 | 0339 | 35.0 | 310.0 | | | |
| | 5730 | IRKU | 45 | C | 0331.0 | 0346.1 | 29.0 | 220.0 | | | R |
| | 4995 | LEAR | 47 | GB | 0332.1 | 0337.5 | 29.5 | 370 | | | |
| | 4995 | PALE | 47 | GB | 0332.8 | 0337.5 | 24.8 | 300 | | | |
| | 2695 | PALE | 8 | S | 0332.8 | 0333.1 | 1.0 | 17 | | | |
| | 2695 | PALE | 47 | GB | 0332.8 | 0333.1 | 1.0 | 340 | | | |
| | 8800 | LEAR | 47 | GB | 0333.3 | 0337.5 | 29.2 | 750 | | | |
| | 2695 | LEAR | 47 | GB | 0333.3 | 0337.6 | 33.0 | 330 | | | |
| | 100 | HIRA | | | 0333.7 | 0337.0 | | 86.0 | | | 0 |
| | 100 | HIRA | 46 | C | 0333.7 | 0345.3 | 49.0 | 240.0 | 16.0 | | 0 |
| | 245 | LEAR | 4 | S/F | 0334.8 | 0345.6 | 11.5 | 55 | | | |
| | 500 | HIRA | 46 | C | 0335.4 | 0339.0 | 17.0 | 90.0 | 40.0 | | WR |
| | 1415 | PALE | 47 | GB | 0335.6 | 0358.0 | 30.2 | 510 | | | |
| | 1415 | LEAR | 47 | GB | 0335.8 | 0358.1 | 30.5 | 510 | | | |
| | 15400 | LEAR | 47 | GB | 0335.8 | 0337.5 | 30.5 | 960 | | | |
| | 15400 | PALE | 47 | GB | 0335.8 | 0337.5 | 19.0 | 850 | | | |
| | 8800 | PALE | 47 | GB | 0335.6 | 0337.3 | 17.8 | 650 | | | |
| | 17000 | NOBE | 46 | C | 0335.8 | 0337.5 | 22.8 | 779.0 | | | 0 |
| | 35000 | NAGO | 7 | C | 0336.0 | 0337 | 8.0 | 323.0 | | | |
| | 35000 | NAGO | | | 0336.0 | 0339 | | | | | |
| | 208 | VORO | | | 0336.0 | 0345 | | 43.0 | | | |
| | 208 | VORO | 46 | C | 0336.0 | 0338 | 24.0 | 40.0 | | | |
| | 606 | PALE | 47 | GB | 0336.1 | 0337.6 | 11.5 | 100 | | | |
| | 606 | LEAR | 47 | GB | 0336.1 | 0337.6 | 12.5 | 130 | | | |
| | 410 | LEAR | 47 | GB | 0336.3 | 0341.6 | 10.2 | 230 | | | |
| | 200 | HIRA | 46 | C | 0336.4 | 0336.9 | 31.0 | 68.0 | 16.0 | | WR |
| | 200 | HIRA | 680 | | 0336.4 | 0345.2 | | | | | WR |
| | 410 | PALE | 47 | GB | 0338.3 | 0342.0 | 7.7 | 170 | | | |
| | 35000 | NAGO | 29 | PBI | 0344.0 | 0345 | 125.0 | 32.0 | | | |
| | 17000 | NOBE | 30 | PBI | 0358.6 | 0358.6 | 76.0 | 37.0 | | | 0 |
| | 9400 | TYKW | 30 | PBI | 0405.0 | | 180.0 | 43.0 | 15.0 | | |
| | 3750 | TYKW | 30 | PBI | 0410.0 | | 200.0 | 20.0 | 9.0 | | |
| | 2000 | TYKW | 30 | PBI | 0410.0 | | 190.0 | 10.0 | 5.0 | | |
| | 2000 | TYKW | 45 | C | 0411.0 | 0412.7 | 6.0 | 11.0 | 3.0 | | |
| | 1415 | LEAR | 47 | GB | 0411.1 | 0412.6 | 6.0 | 119 | | | |
| | 9400 | TYKW | 5 | S | 0413.5 | 0414.0 | 1.5 | 47.0 | 15.0 | | |
| | 3750 | TYKW | 5 | S | 0413.6 | 0414.0 | 6.0 | 10.0 | 2.5 | | |
| | 4995 | LEAR | 8 | S | 0413.6 | 0414.0 | .7 | 32 | | | |
| | 8800 | LEAR | 8 | S | 0413.6 | 0414.0 | .7 | 59 | | | |
| | 17000 | NOBE | 1 | S | 0413.7 | 0414.0 | 1.4 | 13.0 | | | 0 |
| | 15400 | LEAR | 8 | S | 0413.8 | 0414.0 | .3 | 39 | | | |
| | 9400 | TYKW | 29 | PBI | 0415.0 | | 8.0 | 6.0 | 3.0 | | |
| | 3750 | TYKW | 45 | C | 0425.0 | 0434 | 30.0 | 4.0 | 2.0 | | |
| | 1000 | TYKW | 30 | PBI | 0430.6 | | 80.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 45 | C | 0434.0 | 0442.7 | 15.0 | 7.0 | 3.0 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 19 | 9400 | TYKW | 5 | S | 0724.4 | 0724.6 | .5 | 7.0 | 3.0 | | |
| | 8800 | ATHN | 4 | S/F | 1045.0 | 1051.5 | 12.3 | 180 | | | |
| | 9100 | GORK | 46 | C | 1046.0 | 1048.2 | 6.4 | 140.0 | | | |
| | 9100 | GORK | | | 1046.0 | 1051.6 | | 170.0 | | | |
| | 4995 | ATHN | 4 | S/F | 1046.5 | 1051.3 | 8.5D | 130 | | | |
| | 8400 | BERN | 46 | C | 1046.6 | 1052.0 | 100.0 | 145.0 | | | |
| | 19600 | BERN | 46 | C | 1046.6 | 1052.0 | 15.0 | 41.0 | | | |
| | 3200 | BERN | 46 | C | 1046.6 | 1052.0 | 120.0 | .0 | | | ONLY PAPER REC |
| | 11800 | BERN | 46 | C | 1046.6 | 1052.0 | 80.0 | 90.0 | | | |
| | 5200 | BERN | 46 | C | 1046.6 | 1052.0 | 120.0 | 105.0 | | | |
| | 6100 | KISV | 46 | C | 1047.0 | 1052 | 13.0 | 82.0 | | | |
| | 10715 | DWIN | 45 | C | 1047.0 | 1052 | 8.0 | 150.0 | 80.0 | | |
| | 6100 | KISV | | | 1047.0 | 1049.5 | | 47.0 | | | |
| | 2695 | ATHN | 4 | S/F | 1047.5 | 1051.6 | 7.8D | 39 | | | |
| | 2950 | GORK | 45 | C | 1047.7 | 1048.2 | 6.2 | 13.0 | | | |
| | 2950 | GORK | | | 1047.7 | 1051.7 | | 40.0 | | | |
| | 3100 | CRIM | 3 | S | 1048.0 | 1052.0 | 9.0 | 52.0 | 16.0 | | |
| | 2650 | DWIN | 45 | C | 1048.0 | 1052 | 9.0 | 40.0 | 20.0 | | |
| | 1415 | ATHN | 4 | S/F | 1048.6 | 1051.3 | 5.2D | 13 | | | |
| | 9100 | GORK | 29 | PBI | 1052.0 | 1052.5 | 71.0 | 44.0 | | | |
| | 2950 | GORK | 29 | PBI | 1054.0 | 1054.0 | 69.5 | 10.0 | | | |
| | 6100 | KISV | 29 | PBI | 1100.0 | 1100 | 30.0 | 5.0 | | | |
| | 260 | ONDR | 42 | SER | 1244.0 | 1448.6 | 120.0 | 20.0 | | | |
| | 2800 | OTTA | 20 | GRF | 1334.0 | 1342 | 25.0 | 2.6 | 1.3 | | |
| | 2800 | OTTA | 21 | GRF | 1418.0E | | 60.0D | 3.8 | | | |
| | 2800 | OTTA | 1 | S | 1420.0 | 1420.3 | 1.0 | 3.0 | 1.5 | | |
| | 2800 | OTTA | 22 | GRF | 1745.0 | 1808 | 45.0 | 3.8 | 1.4 | | |
| | 9400 | HUAN | | S | 2140.1 | 2140.6 | 1.4 | 14.1 | 3.9 | | 0 |
| | 9400 | HUAN | | C | 2209.7 | 2210.2 | 2.0 | 37.5 | 13.3 | | 0 |
| | 9400 | HUAN | | | 2209.7 | 2210.8 | | 38.3 | | | |
| | 2695 | PENT | 1 | S | 2248.0 | 2249 | 2.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 2324.0 | 2325.3 | 20.0 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 2324.6 | 2325.2 | 20.0 | 11.0 | 3.0 | | |
| 20 | 208 | VORO | 44 | NS | 0000.0E | | 240.0D | | 7.0 | | |
| | 245 | LEAR | 43 | NS | 0217.0 | 0601.6 | 506.0 | 58 | | | |
| | 200 | HIRA | 43 | NS | 0443.0 | 0715 | 200.0D | 10.0 | 5.0 | | WL |
| | 200 | GORK | 44 | NS | 0509.0E | | 291.0D | | 5.0 | | |
| | 127 | TORN | 43 | NS | 0908.0 | 1220.9 | 380.0 | 20.0 | 2.0 | | V0 |
| | 260 | ONDR | 43 | NS | 1128.0 | 1336.3 | 214.0D | 78.0 | 3.0 | | |
| | 245 | SGMR | 43 | NS | 1205.0 | 1657.1 | 612.0D | 210 | | | |
| | 3750 | TYKW | 21 | GRF | 0005.0 | 0035 | 145.0 | 7.0 | 3.0 | | |
| | 9400 | TYKW | 21 | GRF | 0008.0 | 0035 | 90.0 | 11.0 | 3.5 | | |
| | 2000 | TYKW | 21 | GRF | 0020.0 | 0030 | 120.0 | 3.5 | 1.5 | | |
| | 9400 | TYKW | 45 | C | 0129.0 | 0129.6 | 3.0 | 24.0 | 3.0 | | |
| | 2000 | TYKW | 45 | C | 0129.0 | 0130.5 | 3.0 | 42.0 | 5.0 | | |
| | 3750 | TYKW | 45 | C | 0129.0 | 0129.5 | 3.0 | 26.0 | 5.0 | | |
| | 4995 | LEAR | 8 | S | 0129.3 | 0129.6 | 1.5 | 22 | | | |
| | 15400 | LEAR | 8 | S | 0129.3 | 0129.6 | .8 | 13 | | | |
| | 2695 | LEAR | 8 | S | 0129.3 | 0129.6 | 1.5 | 21 | | | |
| | 8800 | LEAR | 8 | S | 0129.3 | 0129.6 | .8 | 28 | | | |
| | 2695 | LEAR | 8 | S | 0130.3 | 0130.5 | .7 | 20 | | | |
| | 1415 | LEAR | 8 | S | 0130.3 | 0130.5 | .5 | 18 | | | |
| | 9400 | TYKW | 21 | GRF | 0145.0 | 0210 | 45.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 20 | GRF | 0150.0 | 0200 | 30.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 45 | C | 0151.0 | 0152.1 | 2.0 | 20.0 | 3.0 | | |
| | 3750 | TYKW | 20 | GRF | 0238.0 | 0244 | 40.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 0316.8 | 0317.3 | 1.5 | 31.0 | 9.0 | | |
| | 3750 | TYKW | 45 | C | 0332.0 | 0338 | 20.0 | 5.0 | 1.5 | | |
| | 8800 | LEAR | 4 | S/F | 0333.6 | 0339.3 | 13.1 | 10 | | | |
| | 15400 | LEAR | 4 | S/F | 0334.8 | 0336.8 | 19.3 | 19 | | | |
| | 1000 | TYKW | 5 | S | 0336.3 | 0336.6 | .8 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0337.5 | 0339.5 | 15.0 | 6.0 | 2.0 | | |
| | 3750 | TYKW | 28 | PRE | 0435.0 | 0543 | 124.0 | 9.0 | 5.0 | | |
| | 9400 | TYKW | 28 | PRE | 0435.0 | 0548 | 124.0 | 7.0 | 4.0 | | |
| | 2000 | TYKW | 28 | PRE | 0435.0 | 0538 | 124.0 | 7.0 | 4.5 | | |
| | 9400 | TYKW | 5 | S | 0518.7 | 0519.0 | 1.5 | 8.0 | 3.0 | | |
| | 2950 | GORK | 21 | GRF | 0546.3 | 0700.0 | 330.0 | 24.0 | | | |
| | 2000 | TYKW | 5 | S | 0548.0 | 0550.6 | 5.0 | 12.0 | 5.0 | | |
| | 3750 | TYKW | 45 | C | 0548.0 | 0550.5 | 6.0 | 38.0 | 12.0 | | |
| | 2950 | GORK | 3 | S | 0548.8 | 0550.3 | 2.8 | 22.0 | 11.0 | | |
| | 9400 | TYKW | 5 | S | 0549.0 | 0550.9 | 40.0 | 14.0 | 5.0 | | |
| | 1000 | TYKW | 45 | C | 0549.0 | 0550.3 | 4.0 | 21.0 | 2.5 | | |
| | 9100 | GORK | 22 | GRF | 0549.0 | 0550.3 | 47.0 | 14.0 | | | |
| | 2695 | LEAR | 8 | S | 0549.5 | 0550.6 | 1.8 | 28 | | | |
| | 4995 | LEAR | 8 | S | 0549.6 | 0550.5 | 1.7 | 29 | | | |
| | 606 | LEAR | 8 | S | 0550.1 | 0550.8 | 1.2 | 18 | | | |
| | 8800 | LEAR | 8 | S | 0550.1 | 0550.3 | 1.4 | 18 | | | |
| | 17000 | NOBE | 20 | GRF | 0550.2 | 0551.3 | 25.0 | 13.0 | | | 0 |
| | 2000 | TYKW | 29 | PBI | 0553.0 | | 40.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 29 | PBI | 0554.0 | | 30.0 | 6.0 | 4.0 | | |
| | 6100 | KISV | | | 0638.0 | 0646 | | 100.0 | | | |
| | 6100 | KISV | 46 | C | 0638.0 | 0641.6 | 22.0 | 190.0 | | | |
| | 6100 | KISV | | | 0638.0 | 0647.3 | | 105.0 | | | |
| | 6100 | KISV | | | 0638.0 | 0647.8 | | 100.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 8800 | ATHN | 47 | GB | 0638.1 | 0642.0 | 36.9 | 570 | | | |
| | 9100 | GORK | 46 | C | 0638.5 | 0641.5 | 12.8 | 570.0 | | | |
| | 9100 | GORK | | | 0638.5 | 0646.0 | | 380.0 | | | |
| | 2000 | TYKW | 45 | C | 0639.0 | 0642.2 | 18.0 | 172.0 | 55.0 | | |
| | 3750 | TYKW | 45 | C | 0639.0 | 0641.5 | 21.0 | 330.0 | 70.0 | | |
| | 9400 | TYKW | 47 | GB | 0639.0 | 0641.6 | 11.0 | 595.0 | 190.0 | | |
| | 5730 | IRKU | | | 0639.0 | 0645.8 | | 154.0 | | | L |
| | 5730 | IRKU | | | 0639.0 | 0642.1 | | 271.0 | | | L |
| | 5730 | IRKU | | | 0639.6 | 0643.3 | | 227.0 | | | L |
| | 5730 | IRKU | | | 0639.0 | 0647.3 | | 157.0 | | | L |
| | 5730 | IRKU | | | 0639.0 | 0647.9 | | 172.0 | | | L |
| | 5730 | IRKU | 45 | C | 0639.0 | 0641.5 | 14.0 | 286.0 | | | R |
| | 2695 | ATHN | 47 | GB | 0639.0 | 0642.3 | 18.3D | 480 | | | |
| | 4995 | ATHN | 47 | GB | 0639.0 | 0642.3 | 36.0D | 350 | | | |
| | 4995 | MANI | 47 | GB | 0639.5 | 0642.5 | 13.5D | 300 | | | |
| | 4995 | LEAR | 47 | GB | 0639.5 | 0641.6 | 21.6 | 360 | | | |
| | 8800 | LEAR | 47 | GB | 0639.5 | 0641.6 | 21.6 | 720 | | | |
| | 3100 | CRIM | 47 | GB | 0639.5 | 0642.0 | 17.0 | 201.0 | 70.0 | | |
| | 3100 | CRIM | | | 0639.5 | 0647.7 | | 133.0 | | | |
| | 3100 | CRIM | | | 0639.5 | 0646.7 | | 107.0 | | | |
| | 17000 | NOBE | 46 | C | 0639.5 | 0642.4 | 12.2 | 455.0 | | | R |
| | 2950 | GORK | | | 0639.5 | 0647.2 | | 135.0 | | | |
| | 2950 | GORK | 46 | C | 0639.5 | 0641.2 | 11.2 | 250.0 | | | |
| | 2695 | LEAR | 47 | GB | 0639.8 | 0641.6 | 21.3 | 250 | | | |
| | 8800 | MANI | 47 | GB | 0640.0 | 0642.5 | 12.0 | 460 | | | |
| | 1000 | TYKW | 45 | C | 0640.0 | 0642.3 | 15.0 | 45.0 | 13.0 | | |
| | 410 | LEAR | 4 | S/F | 0640.5 | 0647.6 | 7.3 | 70 | | | |
| | 1415 | ATHN | 47 | GB | 0640.6 | 0642.0 | 16.7D | 87 | | | |
| | 15400 | LEAR | 47 | GB | 0640.6 | 0642.8 | 20.5 | 510 | | | |
| | 1415 | LEAR | 47 | GB | 0640.8 | 0642.0 | 9.3 | 97 | | | |
| | 1415 | MANI | 47 | GB | 0641.0 | 0648.8 | 11.0D | 47 | | | |
| | 606 | MANI | 47 | GB | 0641.0 | 0650.6 | 14.6D | 34 | | | |
| | 2695 | MANI | 47 | GB | 0641.0 | 0642.5 | 12.0D | 220 | | | |
| | 950 | GORK | | | 0641.0 | 0647.0 | | 24.0 | | | |
| | 950 | GORK | 46 | C | 0641.0 | 0642.2 | 9.6 | 14.0 | | | |
| | 35000 | NAGO | 7 | C | 0641.6 | 0642 | 4.0 | 131.0 | | | |
| | 35000 | NAGO | | | 0641.0 | 0645 | | | | | |
| | 606 | LEAR | 4 | S/F | 0643.0 | 0645.1 | 2.8 | 41 | | | |
| | 650 | GORK | 46 | C | 0645.0 | 0647.0 | 7.4 | 15.0 | | | |
| | 650 | GORK | | | 0645.0 | 0649.1 | | 12.5 | | | |
| | 35000 | NAGO | 29 | PBI | 0646.0 | 0647 | 46.0 | 45.0 | | | |
| | 9400 | TYKW | 29 | PBI | 0650.0 | | 50.0D | 60.0 | 40.0D | | |
| | 9100 | GORK | 29 | PBI | 0651.0 | 0651.5 | 330.0 | 60.0 | | | |
| | 17000 | NOBE | 29 | PBI | 0651.0 | 0651.7 | 60.0 | 48.0 | | | 0 |
| | 1000 | TYKW | 29 | PBI | 0655.0 | | 15.0D | 5.0 | 5.0D | | |
| | 3100 | CRIM | 29 | PBI | 0656.0 | 0656.0 | 124.0 | 20.0 | 7.0 | | |
| | 2000 | TYKW | 29 | PBI | 0657.0 | | 45.0D | 22.0 | 20.0D | | |
| | 3750 | TYKW | 29 | PBI | 0700.0 | | 50.0D | 25.0 | 16.0D | | |
| | 6100 | KISV | 29 | PBI | 0700.0 | 0700 | 120.0 | 10.0 | | | |
| | 5200 | BERN | 20 | GRF | 0748.0 | 0754.2 | 50.0 | 12.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 20 | GRF | 0748.0 | 0754.2 | 50.0 | .0 | | | ONLY PAPER REC |
| | 4995 | LEAR | 4 | S/F | 0753.3 | 0756.1 | 8.7 | 08 | | | |
| | 2695 | LEAR | 4 | S/F | 0753.5 | 0756.3 | 9.5 | 15 | | | |
| | 606 | LEAR | 8 | S | 0753.8 | 0755.1 | 2.0 | 28 | | | |
| | 2800 | OTTA | 21 | GRF | 1820.0 | 2135 | 340.0 | 14.4 | 7.2 | | |
| | 9400 | HUAN | | S | 1834.8 | 1835.1 | 1.2 | 11.7 | 6.1 | | 0 |
| | 2695 | PENT | 22 | GRF | 2006.0 | 2012.5 | 11.0 | 7.6 | 4.0 | | |
| | 9400 | TYKW | 5 | S | 2224.0 | 2225.0 | 2.0 | 10.0 | 3.0 | | |
| | 3750 | TYKW | 5 | S | 2224.0 | 2225.0 | 2.0 | 4.0 | 1.0 | | |
| | 9400 | TYKW | 30 | PBI | 2226.0 | | 15.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 | S | 2232.4 | 2232.9 | 3.5 | 28.0 | 5.0 | | |
| | 9400 | TYKW | 5 | S | 2253.0 | 2254.7 | 4.0 | 25.0 | 6.0 | | |
| | 3750 | TYKW | 20 | GRF | 2255.6 | 2305 | 60.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 30 | PBI | 2257.0 | | 30.0 | 4.0 | 2.0 | | |
| | 9400 | TYKW | 5 | S | 2301.0 | 2302.1 | 2.0 | 39.0 | 12.0 | | |
| | 15400 | PALE | 8 | S | 2301.5 | 2302.0 | .8 | 25 | | | |
| | 8800 | PALE | 8 | S | 2301.5 | 2302.0 | 1.3 | 36 | | | |
| | 9400 | TYKW | 29 | PBI | 2303.0 | | 5.0 | 8.0 | 3.0 | | |
| 21 | 245 | LEAR | 43 | NS | 0440.8 | 0508.0 | 94.7 | 22 | | | |
| | 260 | ONDR | 44 | NS | 0800.0 | | 429.0 | 47.0 | | | |
| | 127 | TORN | 43 | NS | 1000.0 | 1301.0 | 320.0 | 50.0 | 1.0 | | V0 |
| | 245 | SGMR | 43 | NS | 1136.0 | 1229.8 | 642.0D | 43 | | | |
| | 200 | HIRA | 44 | NS | 2118.0E | 0120 | 660.0D | 15.0 | 5.0 | | 0 |
| | 245 | LEAR | 43 | NS | 2233.0 | 0247.8 | 728.0D | 58 | | | |
| | 208 | VORO | 44 | NS | 2300.0E | | 240.0D | | 9.0 | | |
| | 3750 | TYKW | 20 | GRF | 0030.0 | 0047 | 35.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 20 | GRF | 0120.0 | 0132 | 85.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 20 | GRF | 0120.0 | 0150 | 85.0 | 6.0 | 4.0 | | |
| | 9400 | TYKW | 20 | GRF | 0125.0 | 0150 | 75.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 20 | GRF | 0305.0 | 0320 | 70.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 20 | GRF | 0520.0 | 0550 | 120.0 | 1.5 | .7 | | |
| | 3750 | TYKW | 21 | GRF | 0530.0 | 0550 | 100.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0552.5 | 0553.7 | 3.0 | 2.5 | 1.0 | | |
| | 9100 | GORK | 1 | S | 0905.2 | 0905.9 | 4.3 | 4.5 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 3100 | CRIM | 1 S | 1033.0 | 1033.5 | 2.0 | 3.0 | 1.0 | | |
| | 9100 | GORK | 20 GRF | 1033.2 | 1123.1 | 69.0E | 10.0 | | | |
| | 650 | GORK | 2 S/F | 1033.3 | 1033.8 | 1.5 | 42.0 | | | |
| | 2950 | GORK | 1 S | 1033.6 | 1033.8 | .8 | 4.0 | 2.0 | | |
| | 950 | GORK | 1 S | 1033.6 | 1034.0 | .8 | 1.8 | .9 | | |
| | 810 | KRAK | 8 S | 1033.8 | 1034.0 | .5 | 20.0 | | | |
| | 430 | KRAK | 42 SER | 1049.8 | 1055.0 | 6.2 | 44.0 | | | |
| | 430 | KRAK | 42 SER | 1300.8 | 1349.2 | 53.5 | 140.0 | | | |
| | 810 | KRAK | 8 S | 1334.2 | 1334.3 | .2 | 10.0 | | | |
| | 2800 | OTTA | 20 GRF | 1340.0 | | 120.0 | 7.2 | | | |
| | 2800 | OTTA | 1 S | 1607.2 | 1608.5 | 3.0 | 3.4 | 1.6 | | |
| | 606 | SGMR | 8 S | 1632.5 | 1632.6 | .7D | 18 | | | |
| | 410 | SGMR | 8 S | 1632.3 | 1632.3 | .8 | 56 | | | |
| | 2800 | OTTA | 21 GRF | 1640.0 | 1825 | 180.0 | 12.8 | 6.4 | | |
| | 2800 | OTTA | 4 S/F | 1656.0 | 1701.5 | 10.0 | 13.6 | 7.0 | | |
| | 2800 | OTTA | 3 S | 1902.0 | 1903.7 | 10.0 | 45.0 | 9.6 | | |
| | 4995 | SGMR | 4 S/F | 1902.3 | 1903.3 | 3.2D | 64 | | | |
| | 4995 | PALE | 4 S/F | 1902.3 | 1903.3 | 2.7 | 60 | | | |
| | 8800 | PALE | 4 S/F | 1902.3 | 1903.3 | 2.5 | 40 | | | |
| | 2695 | PALE | 4 S/F | 1902.3 | 1903.6 | 3.5 | 44 | | | |
| | 2695 | SGMR | 4 S/F | 1902.3 | 1903.6 | 5.7 | 41 | | | |
| | 8800 | SGMR | 4 S/F | 1902.6 | 1903.6 | 3.4D | 40 | | | |
| | 15400 | SGMR | 8 S | 1903.1 | 1903.3 | .9D | 10 | | | |
| | 2800 | OTTA | 8 S | 1935.0 | 1935 | .1 | 3.8 | | | |
| | 410 | SGMR | 47 GB | 1959.5 | 2004.6 | 8.6D | 860 | | | |
| | 606 | PALE | 8 S | 1959.8 | 2000.1 | 1.0 | 130 | | | |
| | 2800 | OTTA | 24OAR | 2000.0 | 2015 | 15.0 | 18.4 | 9.0 | | |
| | 8800 | SGMR | 8 S | 2002.1 | 2002.8 | 1.4D | 11 | | | |
| | 15400 | SGMR | 4 S/F | 2002.3 | 2003.1 | 3.3D | 13 | | | |
| | 606 | PALE | 47 GB | 2002.5 | 2003.1 | 2.3 | 790 | | | |
| | 2695 | SGMR | 4 S/F | 2002.5 | 2003.1 | 4.0D | 17 | | | |
| | 2695 | PENT | 46F C | 2002.8 | 2003.2 | 3.0 | 3.6 | | | |
| | 15400 | PALE | 8 S | 2003.0 | 2003.1 | .1 | 24 | | | |
| | 4995 | SGMR | 8 S | 2003.0 | 2003.1 | 1.0D | 13 | | | |
| | 1415 | SGMR | 8 S | 2003.1 | 2004.0 | 2.0D | 11 | | | |
| | 2695 | PALE | 8 S | 2003.1 | 2003.1 | .7 | 24 | | | |
| | 245 | SGMR | 4 S/F | 2003.6 | 2007.1 | 4.2 | 36 | | | |
| | 410 | SGMR | 4 S/F | 2003.6 | 2007.1 | 4.5D | 360 | | | |
| | 410 | PALE | 47 GB | 2007.1 | 2007.1 | .2 | 510 | | | |
| | 606 | SGMR | 4 S/F | 2031.8 | 2036.1 | 9.2 | 33 | | | |
| | 606 | SGMR | 4 S/F | 2202.0 | 2204.1 | 8.0D | 31 | | | |
| | 606 | PALE | 8 S | 2202.6 | 2204.3 | 2.0 | 50 | | | |
| | 500 | HIRA | 41 F | 2202.7 | 2203.4 | 2.0 | 210.0 | | | 0 |
| | 1000 | TYKW | 42 SER | 2202.8 | 2204.4 | 6.5 | 150.0 | 3.0 | | |
| | 2000 | TYKW | 5 S | 2203.3 | 2203.6 | .5 | 3.0 | 1.0 | | |
| | 410 | PALE | 8 S | 2203.8 | 2204.1 | .3 | 70 | | | |
| | 410 | SGMR | 8 S | 2204.0 | 2204.1 | .3 | 56 | | | |
| | 606 | PALE | 8 S | 2208.3 | 2208.6 | 1.0 | 35 | | | |
| | 500 | HIRA | 41 F | 2208.4 | 2208.7 | .7 | 140.0 | | | 0 |
| | 410 | PALE | 8 S | 2208.6 | 2208.6 | .5 | 85 | | | |
| | 1000 | TYKW | 42 SER | 2220.4 | 2220.6 | 3.2 | 88.0 | 4.0 | | |
| | 2000 | TYKW | 8 S | 2220.4 | 2220.5 | .2 | 3.0 | .7 | | |
| | 1000 | TYKW | | 2220.4 | 2222.1 | | 31.0 | | | |
| | 1000 | TYKW | | 2220.4 | 2222.3 | | 31.0 | | | |
| | 3750 | TYKW | 8 S | 2220.4 | 2220.5 | .2 | 3.0 | .7 | | |
| | 2000 | TYKW | 8 S | 2221.9 | 2222.0 | .2 | 3.0 | .7 | | |
| | 1000 | TYKW | 8 S | 2227.1 | 2227.2 | .3 | 20.0 | 4.0 | | |
| | 500 | HIRA | 41 F | 2229.4 | 2229.6 | 1.5 | 300.0 | | | 0 |
| | 1000 | TYKW | 42 SER | 2229.6 | 2229.8 | 2.3 | 68.0 | 4.0 | | |
| | 2000 | TYKW | 8 S | 2229.7 | 2229.9 | .4 | 1.5 | .4 | | |
| | 1000 | TYKW | 8 S | 2316.3 | 2316.4 | .2 | 24.0 | 6.0 | | |
| | 1000 | TYKW | 45 C | 2355.5 | 2355.8 | .5 | 7.0 | 3.0 | | |
| | 606 | PALE | 8 S | 2358.6 | 2358.8 | .4 | 18 | | | |
| | 410 | PALE | 8 S | 2358.6 | 2358.8 | .4 | 45 | | | |
| | 606 | LEAR | 8 S | 2358.8 | 2358.8 | .2 | 20 | | | |
| | 410 | LEAR | 8 S | 2358.6 | 2358.8 | .3 | 50 | | | |
| 22 | 410 | LEAR | 43 NS | 0142.5 | 0351.6 | 538.5 | 13 | | | |
| | 260 | ONDR | 44 NS | 0813.0E | | 367.0 | 74.0 | | | |
| | 127 | TORN | 43 NS | 1020.0 | 1410.9 | 300.0 | 10.0 | 1.0 | | V0 |
| | 245 | PALE | 43 NS | 2019.5 | 2351.0 | 470.5D | 43 | | | |
| | 200 | HIRA | 43 NS | 2200.0 | 0658 | 660.0D | 25.0 | 5.0 | | WR |
| | 245 | LEAR | 43 NS | 2234.0 | 0855.1 | 726.0D | 60 | | | |
| | 208 | VORO | 44 NS | 2300.0E | | 240.0D | | 8.0 | | |
| | 606 | LEAR | 8 S | 0002.0 | 0002.1 | .1 | 250 | | | |
| | 410 | LEAR | 8 S | 0002.0 | 0002.1 | .3 | 200 | | | |
| | 1000 | TYKW | 8 S | 0028.0 | 0028.1 | .2 | 4.0 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0045.0 | 0049 | 10.0 | 1.5 | .7 | | |
| | 9400 | TYKW | 5 S | 0045.0 | 0048 | 15.0 | 3.0 | 1.5 | | |
| | 1000 | TYKW | 45 C | 0103.0 | 0123.3 | 70.0 | 5.0 | 2.0 | | |
| | 1000 | TYKW | | 0103.0 | 0145.0 | | 5.0 | | | |
| | 9400 | TYKW | 5 S | 0110.0 | 0112.3 | 4.0 | 7.0 | 3.0 | | |
| | 3750 | TYKW | 5 S | 0110.0 | 0112.3 | 4.0 | 7.0 | 4.0 | | |
| | 9400 | TYKW | 30 PBI | 0114.0 | | 75.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 30 PBI | 0114.0 | | 75.0 | 6.0 | 2.5 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF +40&TH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 2800 | TYKW | 20 GRF | 0145.0 | 0200 | 40.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 20 GRF | 0145.0 | 0200 | 40.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 20 GRF | 0150.0 | 0200 | 30.0 | 3.0 | 1.5 | | |
| | 8800 | LEAR | 4 S/F | 0244.8 | 0247.5 | 15.7 | 170 | | | |
| | 2930 | VORO | 45 C | 0245.8 | 0250 | 10.0 | 28.0 | | | |
| | 9400 | TYKW | 45 C | 0245.5E | 0247.5 | 13.5D | 165.0 | 40.0D | | |
| | 8800 | PALE | 4 S/F | 0245.5 | 0247.5 | 6.3 | 160 | | | |
| | 15400 | PALE | 4 S/F | 0245.5 | 0247.5 | 4.3 | 119 | | | |
| | 245 | PALE | 8 S | 0245.6 | 0246.0 | .7 | 70 | | | |
| | 245 | LEAR | 8 S | 0245.6 | 0246.1 | .7 | 67 | | | |
| | 2695 | PALE | 4 S/F | 0246.0 | 0248.5 | 6.1 | 28 | | | |
| | 4995 | PALE | 4 S/F | 0246.0 | 0248.3 | 6.1 | 64 | | | |
| | 2000 | TYKW | 45 C | 0246.0E | 0249.7 | 13.0D | 12.0 | 5.0D | | |
| | 4995 | LEAR | 47 GB | 0246.1 | 0249.6 | 12.4 | 63 | | | |
| | 17000 | NOBE | 7 C | 0246.2 | 0247.4 | 4.6 | 89.0 | | | R |
| | 15400 | LEAR | 4 S/F | 0246.6 | 0247.3 | 5.2 | 130 | | | |
| | 3750 | TYKW | 45 C | 0247.5E | 0249.6 | 11.5D | 40.0 | 20.0D | | |
| | 2695 | LEAR | 47 GB | 0247.8 | 0249.6 | 2.2 | 18 | | | |
| | 1000 | TYKW | 45 C | 0248.8 | 0249.3 | 1.5 | 76.0 | 4.0 | | |
| | 17000 | NOBE | 29 PBI | 0250.0 | 0250.9 | 11.0 | 16.0 | | | R |
| | 9400 | TYKW | 30 PBI | 0259.0 | | 125.0 | 13.0 | 3.0 | | |
| | 3750 | TYKW | 30 PBI | 0259.0 | | 125.0 | 8.0 | 4.0 | | |
| | 2000 | TYKW | 30 PBI | 0259.0 | | 125.0 | 3.0 | 1.5 | | |
| | 2000 | TYKW | 5 S | 0335.0 | 0335.3 | 1.0 | 2.0 | .7 | | |
| | 3750 | TYKW | 5 S | 0335.0 | 0335.3 | 1.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 8 S | 0335.2 | 0335.3 | .4 | 43.0 | 9.0 | | |
| | 2000 | TYKW | 20 GRF | 0340.0 | 0410 | 70.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 20 GRF | 0344.0 | 0419.5 | 75.0 | 8.0 | 3.5 | | |
| | 9400 | TYKW | 20 GRF | 0345.0 | 0419.5 | 70.0 | 8.0 | 3.0 | | |
| | 2695 | PALE | 8 S | 0349.1 | 0349.6 | 1.5 | 41 | | | |
| | 8800 | PALE | 8 S | 0349.1 | 0349.6 | 2.0 | 55 | | | |
| | 4995 | PALE | 8 S | 0349.1 | 0349.6 | 1.5 | 31 | | | |
| | 15400 | PALE | 8 S | 0349.1 | 0350.0 | 2.0 | 69 | | | |
| | 1415 | PALE | 8 S | 0349.1 | 0349.6 | 1.5 | 13 | | | |
| | 3750 | TYKW | 21 GRF | 0520.0 | 0539 | 35.0 | 4.0 | 1.5 | | |
| | 2000 | TYKW | 21 GRF | 0520.0 | 0540 | 35.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 21 GRF | 0520.0 | 0535 | 35.0 | 4.0 | 2.0 | | |
| | 1000 | TYKW | 45 C | 0521.4 | 0521.9 | 1.0 | 12.0 | 3.0 | | |
| | 9400 | TYKW | 45 C | 0526.6 | 0526.7 | .8 | 4.0 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0526.6 | 0526.7 | .5 | 5.0 | 1.5 | | |
| | 2000 | TYKW | 5 S | 0526.7 | 0526.8 | .5 | 2.0 | .5 | | |
| | 9100 | GORK | 20 GRF | 0540.6E | 0707.2 | 160.0D | 12.0 | | | |
| | 2000 | TYKW | 20 GRF | 0620.0 | 0640 | 60.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 20 GRF | 0630.0 | 0640 | 60.0 | 5.0 | 2.5 | | |
| | 3750 | TYKW | 20 GRF | 0630.0 | 0640 | 60.0 | 4.0 | 2.0 | | |
| | 650 | GORK | 22 GRF | 0811.7 | 0830.7 | 42.3 | 3.8 | | | |
| | 430 | KRAK | 42 SER | 0829.5 | 0909.0 | 39.5 | 50.0 | | | |
| | 6100 | KISV | 1 S | 0832.0 | 0833 | 2.0 | 3.0 | | | |
| | 9100 | GORK | 1 S | 0935.6 | 0936.5 | 2.1 | 5.0 | 2.5 | | |
| | 9100 | GORK | 20 GRF | 0943.1 | 1045.5 | 116.0E | 12.0 | | | |
| | 810 | KRAK | 8 S | 0951.0 | 0951.0 | .1 | 11.0 | | | |
| | 2695 | LEAR | 47 GB | 0959.5 | 1000.6 | 4.1 | 37 | | | |
| | 15400 | LEAR | 4 S/F | 1000.3 | 1001.6 | 3.2 | 32 | | | |
| | 4995 | LEAR | 4 S/F | 1000.3 | 1000.6 | 3.3 | 33 | | | |
| | 1415 | LEAR | 8 S | 1001.6 | 1001.8 | .2 | 13 | | | |
| | 650 | GORK | 22 GRF | 1015.5 | 1044.0 | 43.0 | 8.8 | | | |
| | 810 | KRAK | 42 SER | 1020.5 | 1020.5 | .6 | 43.0 | | | |
| | 6100 | KISV | 1 S | 1036.0 | 1036.8 | 2.0 | 3.0 | | | |
| | 950 | GORK | 20 GRF | 1040.3 | 1044.6 | 10.7 | 4.5 | | | |
| | 650 | GORK | 22 GRF | 1106.3 | 1125.0 | 44.0E | 11.5 | | | |
| | 5200 | BERN | 20 GRF | 1147.0 | 1157.6 | 70.0 | 16.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 20 GRF | 1147.0 | 1157.6 | 70.0 | .0 | | | ONLY PAPER REC |
| | 6100 | KISV | 27 RF | 1148.0 | 1158 | 24.0 | 10.0 | | | |
| | 430 | KRAK | 42 SER | 1248.0 | 1257.5 | 73.0D | 100.0 | | | |
| | 606 | SGMR | 4 S/F | 1321.0 | 1322.3 | 3.3 | 21 | | | |
| | 536 | ONDR | 8 S | 1413.0 | 1413 | .2 | 29.0 | | | |
| | 2800 | OTTA | 20 GRF | 1445.0 | 1555 | 135.0 | 4.8 | 2.4 | | |
| | 245 | PALE | 8 S | 1803.6 | 1804.1 | 1.4 | 69 | | | |
| | 245 | SGMR | 4 S/F | 1848.6 | 1848.8 | 3.0 | 230 | | | |
| | 245 | PALE | 8 S | 1848.1 | 1848.8 | 1.0 | 210 | | | |
| | 2800 | OTTA | 8 S | 2135.8 | 2136 | .6 | 2.8 | 1.8 | | |
| 23 | 200 | GORK | 43 NS | 0525.0 | | 376.0E | | 5.0 | | |
| | 410 | LEAR | 43 NS | 0652.0 | 0701.1 | 228.0 | 38 | | | |
| | 260 | ONDR | 44 NS | 0800.0E | | 415.0D | 28.0 | | | |
| | 127 | TORN | 43 NS | 1000.0 | 1004.3 | 320.0 | 60.0 | 2.0 | | V1 |
| | 245 | SGMR | 43 NS | 1512.0 | 2040.8 | 429.0D | 240 | | | |
| | 245 | PALE | 43 NS | 1730.0 | 2038.5 | 792.0D | 139 | | | |
| | 200 | HIRA | 44 NS | 2115.0E | 0151 | 660.0D | 35.0 | 20.0 | | WL |
| | 208 | VORO | 44 NS | 2300.0E | | 240.0D | | 19.0 | | |
| | 17000 | NOBE | 1 S | 0001.0 | 0001.1 | .4 | 26.0U | | | R |
| | 2000 | TYKW | 5 S | 0001.0 | 0001.2 | 2.0 | 6.0 | 2.0 | | |
| | 9400 | TYKW | 5 S | 0001.0 | 0001.2 | 2.0 | 29.0 | 6.0 | | RAIN |
| | 2695 | PALE | 8 S | 0001.0 | 0001.1 | .6 | 10 | | | |
| | 2695 | LEAR | 8 S | 0001.0 | 0001.1 | .3 | 13 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 8800 | PALE | 8 | S | 0001.0 | 0001.1 | 1.3 | 42 | | | |
| | 4995 | PALE | 8 | S | 0001.0 | 0001.1 | .6 | 10 | | | |
| | 4995 | LEAR | 8 | S | 0001.0 | 0001.1 | .3 | 11 | | | |
| | 2695 | PENT | 8 | S | 0001.0 | 0001.1 | .5 | 6.8 | 3.6 | | |
| | 15400 | PALE | 8 | S | 0001.0 | 0001.1 | 1.1 | 38 | | | |
| | 15400 | LEAR | 8 | S | 0001.1 | 0001.1 | .4 | 38 | | | |
| | 8800 | LEAR | 8 | S | 0001.1 | 0001.3 | .5 | 36 | | | |
| | 8800 | LEAR | 8 | S | 0007.3 | 0007.8 | 2.0 | 30 | | | |
| | 4995 | LEAR | 8 | S | 0007.3 | 0007.6 | 1.0 | 10 | | | |
| | 8800 | PALE | 8 | S | 0007.5 | 0007.6 | 1.5 | 33 | | | |
| | 3750 | TYKW | 5 | S | 0007.5 | 0007.8 | .5 | 4.0 | 1.5 | | |
| | 9400 | TYKW | 45 | C | 0007.5 | 0007.8 | 1.5 | 16.0 | 3.0 | | RAIN |
| | 245 | PALE | 8 | S | 0008.6 | 0009.3 | 1.4 | 30 | | | |
| | 2000 | TYKW | 5 | S | 0024.9 | 0025.2 | 1.0 | 1.5 | .5 | | |
| | 9400 | TYKW | 5 | S | 0024.9 | 0025.0 | .6 | 6.0 | 2.0 | | |
| | 2695 | PENT | 8 | S | 0025.0 | 0025.2 | .5 | 3.4 | 1.7 | | |
| | 410 | PALE | 8 | S | 0036.1 | 0036.3 | 1.0 | 38 | | | |
| | 3750 | TYKW | 28 | PRE | 0257.6 | 0535 | 172.0 | 16.0 | 8.0 | | |
| | 8800 | PALE | 8 | S | 0300.8 | 0301.1 | .8 | 15 | | | |
| | 15400 | PALE | 8 | S | 0301.0 | 0301.5 | .8 | 27 | | | |
| | 245 | PALE | 8 | S | 0301.0 | 0302.0 | .6 | 10 | | | |
| | 100 | HIRA | 46 | C | 0311.6 | 0312.2 | 1.4 | 1600.0 | 410.0 | | 0 |
| | 2000 | TYKW | 28 | PRE | 0400.0 | 0545 | 110.0 | 6.0 | 3.5 | | |
| | 4995 | PALE | 8 | S | 0400.6 | 0400.8 | .4 | 21 | | | |
| | 8800 | PALE | 8 | S | 0400.6 | 0400.8 | .2 | 34 | | | |
| | 9400 | TYKW | 28 | PRE | 0415.0 | 0525 | 93.0 | 13.0 | 7.0 | | RAIN |
| | 2695 | LEAR | 4 | S/F | 0430.0 | 0459.5 | 35.0 | 07 | | | |
| | 8800 | LEAR | 4 | S/F | 0430.0 | 0446.5 | 60.0 | 13 | | | |
| | 4995 | LEAR | 4 | S/F | 0431.5 | 0444.0 | 38.5 | 11 | | | |
| | 1000 | TYKW | 45 | C | 0509.2 | 0509.6 | .8 | 9.0 | 1.5 | | |
| | 1000 | TYKW | 8 | S | 0513.2 | 0513.3 | .2 | 5.0 | 1.5 | | |
| | 9400 | TYKW | 45 | C | 0548.0 | 0551.6 | 10.0 | 340.0 | 80.0 | | |
| | 9100 | GORK | | | 0548.3 | 0554.1 | | 130.0 | | | |
| | 9100 | GORK | 46 | C | 0548.3 | 0551.3 | 6.8 | 265.0 | | | |
| | 3750 | TYKW | 45 | C | 0549.0 | 0551.7 | 9.0 | 92.0 | 35.0 | | |
| | 8800 | LEAR | 47 | GB | 0549.3 | 0551.6 | 8.8 | 310 | | | |
| | 4995 | LEAR | 4 | S/F | 0549.5 | 0551.6 | 7.5 | 160 | | | |
| | 4995 | MANI | 47 | GB | 0549.5 | 0552.0 | 18.0D | 190 | | | |
| | 8800 | MANI | 47 | GB | 0549.5 | 0552.0 | 18.0 | 400 | | | |
| | 2950 | GORK | 45 | C | 0549.6 | 0551.3 | 5.5 | 34.0 | | | |
| | 2950 | GORK | | | 0549.8 | 0554.2 | | 15.0 | | | |
| | 2695 | MANI | 47 | GB | 0549.8 | 0552.0 | 10.2D | 50 | | | |
| | 2000 | TYKW | 45 | C | 0550.0 | 0551.7 | 10.0 | 25.0 | 14.0 | | |
| | 650 | GORK | 20 | GRF | 0550.1 | 0551.3 | 15.5 | 4.5 | 1.5 | | |
| | 2695 | LEAR | 4 | S/F | 0550.3 | 0551.6 | 6.0 | 41 | | | |
| | 15400 | LEAR | 47 | GB | 0550.3 | 0551.3 | 5.7 | 370 | | | |
| | 950 | GORK | 20 | GRF | 0550.5 | 0551.9 | 16.0 | 6.0 | 3.0 | | |
| | 200 | GORK | 4 | S/F | 0550.6 | 0551.4 | 1.8 | 12.0 | | | |
| | 500 | HIRA | 46 | C | 0550.7 | 0550.7 | 1.3 | 22.0 | 12.0 | | WL |
| | 606 | MANI | 4 | S/F | 0550.8 | 0551.5 | 2.2D | 02 | | | |
| | 35000 | NAGO | 5 | S | 0551.0 | 0551 | 2.0 | 98.0 | | | |
| | 1000 | TYKW | 45 | C | 0551.0 | 0555.0 | 9.0 | 7.0 | 4.0D | | |
| | 3100 | CRIM | 3 | S | 0551.0 | 0551.5 | 4.0 | 33.0 | 10.0 | | |
| | 410 | LEAR | 8 | S | 0551.1 | 0551.3 | .5 | 98 | | | |
| | 245 | LEAR | 8 | S | 0551.1 | 0551.1 | .2 | 170 | | | |
| | 1415 | MANI | 47 | GB | 0551.1 | 0552.0 | 8.9D | 11 | | | |
| | 1415 | LEAR | 8 | S | 0551.3 | 0551.6 | .7 | 18 | | | |
| | 35000 | NAGO | 29 | PBI | 0553.0 | 0554 | 31.0 | 20.0 | | | |
| | 9100 | GORK | 30 | PBI | 0555.0 | 0555.0 | 380.0E | 55.0 | | | |
| | 2950 | GORK | 30 | PBI | 0555.0 | 0555.1 | 380.0E | | | | |
| | 3750 | TYKW | 30 | PBI | 0558.0 | | 120.0D | 21.0 | 15.0D | | |
| | 9400 | TYKW | 30 | PBI | 0558.0 | | 120.0D | 20.0 | 15.0D | | |
| | 2000 | TYKW | 30 | PBI | 0600.0 | | 110.0D | 8.0 | 7.0D | | |
| | 2000 | TYKW | 5 | S | 0615.0 | 0620 | 25.0 | 1.5 | .7 | | |
| | 3750 | TYKW | 45 | C | 0616.0 | 0617.3 | 22.0 | 7.0 | 3.5 | | |
| | 9400 | TYKW | 5 | S | 0616.0 | 0617.3 | 20.0U | 21.0 | 6.0U | | |
| | 9100 | GORK | 1 | S | 0616.2 | 0617.0 | 1.4 | 10.0 | 5.0 | | |
| | 8800 | LEAR | 4 | S/F | 0616.3 | 0617.1 | 3.7 | 39 | | | |
| | 4995 | LEAR | 4 | S/F | 0616.3 | 0617.3 | 3.5 | 29 | | | |
| | 3750 | TYKW | 45 | C | 0652.0 | 0659.5 | 33.0 | 15.0 | 3.5 | | |
| | 2000 | TYKW | 45 | C | 0652.0 | 0659.0 | 25.0 | 16.0 | 4.0 | | |
| | 9400 | TYKW | 20 | GRF | 0655.6 | 0700 | 30.0U | 11.0 | 5.0U | | |
| | 2950 | GORK | 1 | S | 0656.0 | 0658.2 | 6.2 | 11.0 | 5.0 | | |
| | 2695 | LEAR | 4 | S/F | 0656.8 | 0659.1 | 5.8 | 28 | | | |
| | 4995 | LEAR | 4 | S/F | 0657.0 | 0659.6 | 5.3 | 20 | | | |
| | 3100 | CRIM | 20 | GRF | 0657.0 | 0657.5 | 6.0 | 12.0 | 4.0 | | |
| | 8800 | LEAR | 4 | S/F | 0657.1 | 0700.0 | 4.7 | 20 | | | |
| | 1415 | LEAR | 4 | S/F | 0658.3 | 0659.1 | 3.2 | 13 | | | |
| | 430 | KRAK | 8 | S | 0812.0 | 0812.1 | .3 | 26.0 | | | |
| | 11800 | BERN | 42 | SER | 1105.7 | 1107.5 | 15.0 | 18.0 | | | |
| | 3200 | BERN | 42 | SER | 1106.5 | 1128.2 | 30.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 42 | SER | 1106.5 | 1128.3 | 28.0 | 18.0 | | | |
| | 8400 | BERN | 42 | SER | 1106.5 | 1128.3 | 28.0 | 26.0 | | | |
| | 10715 | DWIN | 1 | S | 1107.0 | 1107.5 | 1.0 | 20.0 | 10.0 | | |
| | 6100 | KISV | 8 | S | 1107.5 | 1107.8 | 1.3 | 14.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 9100 | GORK | 1 S | 1107.8 | 1108.1 | .9 | 21.0 | 10.0 | | |
| | 10715 | DWIN | 1 S | 1127.0 | 1127.5 | 1.0 | 15.0 | 10.0 | | |
| | 6100 | KISV | 8 S | 1127.8 | 1128.4 | 2.2 | 19.0 | | | |
| | 9100 | GORK | 1 S | 1128.2 | 1128.7 | 1.3 | 19.0 | 10.0 | | |
| | 2800 | OTTA | 20 GRF | 1255.0 | 1355 | 105.0 | 12.2 | 6.1 | | |
| | 9400 | HUAN | S | 1323.7 | 1401.5 | 66.0 | 11.9 | 6.9 | | 0 |
| | 2800 | OTTA | 22 GRF | 1510.0 | 1710 | 240.0 | 8.0 | 4.0 | | |
| | 245 | SGMR | 47 GB | 1552.1 | 1552.8 | 3.7 | 1100 | | | |
| | 245 | PALE | 8 S | 1950.3 | 1950.3 | .3 | 79 | | | |
| | 2695 | PENT | 240 R | 2005.0 | 2015 | 10.0 | 2.0 | 1.0 | | |
| | 8800 | PALE | 8 S | 2025.8 | 2026.3 | 1.8 | 18 | | | |
| | 2695 | PENT | 240 R | 2120.0 | 2130 | 10.0 | 3.2 | 1.4 | | |
| | 9400 | TYKW | 5 S | 2358.3 | 2358.5 | .5 | 10.0 | 3.0 | | RAIN |
| 24 | 200 | GORK | 44 NS | 0500.0E | | 306.0D | | 5.0 | | |
| | 127 | TORN | 44 NS | 0700.0E | 1453.3 | 500.0D | 100.0D | 3.0 | | V1 |
| | 260 | ONDR | 44 NS | 0802.0E | | 418.0D | 44.0 | 3.0 | | |
| | 1415 | ATHN | 43 NS | 0820.3 | 0821.6 | 9.3D | 40 | | | |
| | 245 | SGMR | 43 NS | 1303.0 | 1454.1 | 559.0D | 130 | | | |
| | 200 | HIRA | 44 NS | 2115.0E | 0043 | 660.0D | 10.0 | 5.0 | | 0 |
| | 245 | LEAR | 43 NS | 2234.6 | 2256.3 | 726.0D | 110 | | | |
| | 200 | VORO | 44 NS | 2300.0E | | 240.0D | | 10.0 | | |
| | 2930 | VORO | 45 C | 0008.0 | 0012 | 12.0 | 102.0 | | | |
| | 9400 | TYKW | 47 GB | 0009.0 | 0011.1 | 8.0 | 1670.0 | 250.0 | | RAIN |
| | 15400 | PALE | 47 GB | 0009.6 | 0011.0 | 17.5 | 2600 | | | |
| | 8800 | PALE | 47 GB | 0009.6 | 0011.1 | 16.5 | 2000 | | | |
| | 17000 | NOBE | 47 GB | 0009.7 | 0011.0 | 6.0U | 2126.0 | | | 0 |
| | 3750 | TYKW | 45 C | 0010.5 | 0011.1 | 6.5 | 190.0 | 60.0 | | |
| | 4995 | PALE | 4 S/F | 0010.5 | 0011.1 | 15.1 | 390 | | | |
| | 2695 | PALE | 4 S/F | 0011.0 | 0012.1 | 9.1 | 57 | | | |
| | 1000 | TYKW | 45 C | 0011.0 | 0016.5 | 24.0 | 5.0 | 1.5 | | |
| | 2000 | TYKW | 45 C | 0011.0 | 0012.5 | 6.0 | 24.0 | 10.0 | | |
| | 35000 | NAGO | 5 S | 0011.0 | 0011 | 1.0 | 748.0 | | | |
| | 410 | PALE | 4 S/F | 0011.3 | 0011.3 | 8.2 | 64 | | | |
| | 2695 | PENT | 4 S/F | 0011.5 | 0012.1 | 5.5 | 57.0 | 27.0 | | |
| | 1415 | PALE | 4 S/F | 0012.1 | 0012.8 | 7.7 | 13 | | | |
| | 2000 | TYKW | 30 PBI | 0017.0 | | 80.0 | 4.0 | 2.0 | | |
| | 3750 | TYKW | 30 PBI | 0017.0 | | 80.0 | 15.0 | 5.0 | | |
| | 9400 | TYKW | 30 PBI | 0017.0 | | 50.0 | 20.0 | 10.0 | | |
| | 9400 | TYKW | 5 S | 0020.0 | 0022.2 | 10.0 | 44.0 | 10.0 | | |
| | 3750 | TYKW | 5 S | 0022.0 | 0022.2 | 1.0 | 2.0 | 1.0 | | |
| | 2000 | TYKW | 5 S | 0022.0 | 0022.3 | 1.5 | 1.5 | .5 | | |
| | 15400 | LEAR | 47 GB | 0023.3E | 0040.3 | 18.3 | 57 | | | |
| | 4995 | LEAR | 47 GB | 0023.3E | 0025.0 | 13.8 | 30 | | | |
| | 8800 | LEAR | 47 GB | 0023.3E | 0023.8 | 13.8 | 48 | | | |
| | 606 | LEAR | 47 GB | 0027.6E | 0038.6 | 9.5 | 19 | | | |
| | 410 | LEAR | 47 GB | 0027.6E | 0029.8 | 3.9 | 19 | | | |
| | 2695 | LEAR | 47 GB | 0027.6E | 0027.8 | .2 | 13 | | | |
| | 3750 | TYKW | 21 GRF | 0258.0 | 0454 | 290.0D | 12.0 | 7.0D | | |
| | 9400 | TYKW | 5 S | 0416.0 | 0416.3 | 1.0 | 8.0 | 2.5 | | |
| | 17000 | NOBE | 1 S | 0434.9 | 0435.2 | 1.2 | 15.0 | | | R |
| | 9400 | TYKW | 5 S | 0435.0 | 0435.3 | 1.0 | 3.0 | 1.0 | | |
| | 9400 | TYKW | 5 S | 0446.0 | 0453.7 | 15.0 | 7.0 | 2.0 | | |
| | 9400 | TYKW | 5 S | 0501.5 | 0502.0 | 1.5 | 6.0 | 2.0 | | |
| | 9400 | TYKW | 21 GRF | 0512.0 | 0525 | 30.0 | 10.0 | 4.0 | | |
| | 9400 | TYKW | 5 S | 0514.6 | 0514.9 | .6 | 5.0 | 1.5 | | |
| | 606 | LEAR | 8 S | 0514.6 | 0514.8 | .4 | 180 | | | |
| | 9100 | GORK | 23 GRF | 0530.0E | 1059.5 | 456.0E | 70.0 | | | |
| | 3750 | TYKW | 28 PRE | 0530.0 | 0627 | 59.0 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 20 GRF | 0550.0 | 0633 | 120.0 | 5.0 | 1.0 | | |
| | 2950 | GORK | 21 GRF | 0603.0 | 0758.0 | 210.0 | 13.0 | | | |
| | 9400 | TYKW | 5 S | 0603.0 | 0603.9 | 1.0 | 15.0 | 5.0 | | |
| | 8800 | ATHN | 8 S | 0603.1 | 0603.8 | 1.0 | 17 | | | |
| | 9100 | GORK | 1 S | 0603.4 | 0603.9 | 1.0 | 16.0 | 8.0 | | |
| | 4995 | ATHN | 8 S | 0603.5 | 0603.8 | .6D | 07 | | | |
| | 245 | LEAR | 8 S | 0612.6 | 0612.8 | | 54 | | | |
| | 606 | LEAR | 8 S | 0612.6 | 0616.0 | | 19 | | | |
| | 410 | LEAR | 8 S | 0615.5 | 0616.0 | | 32 | | | |
| | 9400 | TYKW | 45 C | 0619.0 | 0625.7 | 33.0 | 11.0 | 4.0 | | |
| | 3750 | TYKW | 45 C | 0629.0 | 0631.5 | 9.0 | 15.0 | 9.0 | | |
| | 3850 | TYKW | 29 PBI | 0638.0 | | 60.0 | 6.0 | 3.0 | | |
| | 606 | LEAR | 8 S | 0712.8 | 0712.8 | 1.3 | 48 | | | |
| | 8800 | LEAR | 8 S | 0719.8 | 0720.1 | 1.0 | 11 | | | |
| | 9100 | GORK | 1 S | 0719.9 | 0720.2 | 1.2 | 12.0 | 6.0 | | |
| | 9400 | TYKW | 45 C | 0720.6 | 0720.2 | 2.0 | 12.0 | 3.0 | | |
| | 3200 | BERN | 22 GRF | 0753.0 | 0821.5 | 80.0 | .0 | | | ONLY PAPER REC |
| | 11800 | BERN | 22 GRF | 0753.1 | 0821.5 | 50.0 | 24.0 | | | |
| | 5200 | BERN | 22 GRF | 0753.1 | 0821.6 | 80.0 | 28.0 | | | |
| | 8400 | BERN | 22 GRF | 0753.1 | 0821.5 | 60.0 | 33.0 | | | |
| | 2650 | DWIN | 2 S/F | 0820.0 | 0822 | 3.0 | 50.0 | 20.0 | | |
| | 3100 | CRIM | 3 S | 0820.0 | 0821.0 | 2.0 | 27.0 | 12.0 | | |
| | 2695 | ATHN | 4 S/F | 0820.5 | 0821.3 | 7.6D | 36 | | | |
| | 8800 | LEAR | 8 S | 0820.6 | 0821.6 | 1.7 | 22 | | | |
| | 8800 | ATHN | 4 S/F | 0820.6 | 0821.8 | 6.7 | 21 | | | |
| | 4995 | ATHN | 4 S/F | 0820.6 | 0821.8 | 9.2D | 26 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 930 | BORD | 46 | C | 0820.6 | 0820.7 | 3.4 | 30.0 | 4.0 | | |
| | 810 | KRAK | 41 | F | 0820.7 | 0821.0 | 1.3 | 17.0 | 6.0 | | |
| | 950 | GORK | 4 | S/F | 0820.7 | 0821.5 | 3.5 | 17.0 | | | |
| | 2950 | GORK | 3 | S | 0820.8 | 0821.5 | 2.0 | 29.0 | 14.0 | | |
| | 9100 | GORK | 1 | S | 0821.0 | 0821.6 | 1.7 | 16.0 | 8.0 | | |
| | 10715 | DWIN | 1 | S | 0821.0 | 0821.5 | 1.0 | 20.0 | 10.0 | | |
| | 1415 | LEAR | 8 | S | 0821.1 | 0821.6 | .9 | 43 | | | |
| | 2695 | LEAR | 8 | S | 0821.3 | 0821.5 | .8 | 40 | | | |
| | 4995 | LEAR | 8 | S | 0821.3 | 0821.6 | .8 | 21 | | | |
| | 3100 | CRIM | 26 | FAL | 0840.0 | 1000.0 | | 9.0 | | | |
| | 245 | LEAR | 4 | S/F | 0848.6 | 0851.1 | 2.7 | 220 | | | |
| | 410 | LEAR | 8 | S | 0851.1 | 0851.1 | .2 | 08 | | | |
| | 606 | LEAR | 8 | S | 0851.1 | 0851.1 | .5 | 42 | | | |
| | 430 | KRAK | 8 | S | 0851.2 | 0851.2 | .1 | 33.0 | | | |
| | 536 | ONDR | 8 | S | 0851.4 | 0851.4 | .5 | 31.0 | | | |
| | 29 | UPIC | 45 | C | 1010.0 | 1010.2 | .9 | | | | |
| | 2950 | GORK | 21 | GRF | 1011.5 | 1100.0 | 175.0 | 38.0 | | | |
| | 5200 | BERN | 47 | GB | 1042.7 | 1225.8 | 230.0 | 390.0 | | | |
| | 3200 | BERN | 47 | GB | 1043.0 | 1225.8 | 230.0 | .0 | | | ONLY PAPER REC |
| | 2650 | DWIN | 21 | GRF | 1045.0 | 1057 | 30.0 | 50.0 | 30.0 | | |
| | 19600 | BERN | 47 | GB | 1045.6 | 1224.4 | 230.0 | 417.0 | | | |
| | 8400 | BERN | 47 | GB | 1045.6 | 1224.4 | 230.0 | 670.0 | | | |
| | 1415 | ATHN | 4 | S/F | 1046.5 | 1056.6 | 30.0D | 65 | | | |
| | 4995 | ATHN | 4 | S/F | 1047.1 | 1056.8 | 29.4D | 65 | | | |
| | 2695 | ATHN | 4 | S/F | 1047.1 | 1056.6 | 29.4D | 53 | | | |
| | 8800 | ATHN | 4 | S/F | 1047.8 | 1056.6 | 28.7 | 67 | | | |
| | 11800 | BERN | 47 | GB | 1049.4 | 1224.4 | 230.0 | 689.0 | | | |
| | 10715 | DWIN | 21 | GRF | 1050.0 | 1057 | 20.0 | 50.0 | 30.0 | | |
| | 808 | ONDR | 46 | C | 1050.0 | 1057.6 | 21.5 | 100.0 | 28.0 | | |
| | 650 | GORK | 21 | GRF | 1050.0 | | 26.0 | | | | |
| | 3100 | CRIM | 21 | GRF | 1051.0 | 1101.0 | 35.0 | 35.0 | 12.0 | | |
| | 950 | GORK | | | 1051.4 | 1107.4 | | 72.0D | | | |
| | 950 | GORK | 46 | C | 1051.4 | 1057.5 | 24.0 | 76.0D | | | |
| | 810 | KRAK | 45 | C | 1051.5 | 1057.3 | 15.0D | 250.0 | 27.0 | | |
| | 930 | BORD | 46 | C | 1052.0 | 1057.6 | 24.0 | 184.0 | 18.0 | | |
| | 430 | KRAK | 40 | F | 1053.5 | 1057.5 | 28.5 | 22.0 | 5.0 | | |
| | 9100 | GORK | 2 | S/F | 1055.5 | 1057.3 | 3.2 | 28.0 | 15.0 | | |
| | 2950 | GORK | 3 | S | 1055.6 | 1057.3 | 3.2 | 29.0 | | | |
| | 536 | ONDR | 46 | C | 1055.6 | 1108.2 | 15.5 | 45.0 | 12.0 | | |
| | 650 | GORK | 46 | C | 1055.7 | 1057.5U | 14.8 | 55.0 | | | |
| | 650 | GORK | | | 1055.7 | 1108.0 | | 64.0 | | | |
| | 3100 | CRIM | 3 | S | 1056.0 | 1058.0 | 3.0 | 30.0 | 10.0 | | |
| | 35000 | BERN | 47 | GB | 1057.4 | 1224.6 | 210.0 | 253.0 | | | |
| | 9100 | GORK | 1 | S | 1106.4 | 1107.3 | 1.9 | 13.0 | 6.0 | | |
| | 29 | UPIC | 42 | SER | 1114.8 | 1129.9 | 17.0 | | | | |
| | 10715 | DWIN | 1 | S | 1121.0 | 1122 | 2.0 | 40.0 | 20.0 | | |
| | 9100 | GORK | 1 | S | 1121.7 | 1122.0 | 1.6 | 13.0 | 6.0 | | |
| | 10715 | DWIN | 47 | GB | 1200.0 | 1224 | 60.0 | 775.0 | 100.0 | | |
| | 8800 | ATHN | 47 | GB | 1200.0 | 1225.5 | 51.1 | 910 | | | |
| | 9100 | GORK | | | 1203.0 | 1237.5 | | 440.0 | | | |
| | 9100 | GORK | | | 1203.6 | 1224.5 | | 700.0 | | | |
| | 9100 | GORK | 46 | C | 1203.0 | 1208.4 | 39.0 | 145.0 | | | |
| | 4995 | ATHN | 47 | GB | 1203.5 | 1226.6 | 48.6D | 560 | | | |
| | 2650 | DWIN | 45 | C | 1205.0 | 1226 | 40.0 | 180.0 | 50.0 | | |
| | 2695 | ATHN | 47 | GB | 1206.8 | 1227.1 | 44.0D | 150 | | | |
| | 950 | GORK | 46 | C | 1207.2 | 1222.8 | 33.4 | 24.0 | | | |
| | 950 | GORK | | | 1207.2 | 1237.9 | | 30.0 | | | |
| | 930 | BORD | 41 | F | 1209.6 | 1210.2 | 1.0 | 52.0 | 2.0 | | |
| | 930 | BORD | 41 | F | 1217.2 | 1218.2 | 1.2 | 24.0 | 2.0 | | |
| | 810 | KRAK | 8 | S | 1217.8 | 1218.0 | .5 | 21.0 | | | |
| | 15400 | SGMR | 4 | S/F | 1221.1 | 1224.3 | 9.9 | 420 | | | |
| | 2950 | GORK | | | 1221.2 | 1237.5 | | 120.0 | | | |
| | 2950 | GORK | 45 | C | 1221.2 | 1226.0 | 20.5 | 205.0 | | | |
| | 536 | ONDR | 45 | C | 1222.0 | 1225.8 | 18.0 | 20.0 | 6.0 | | |
| | 930 | BORD | 45 | C | 1222.0 | 1237.8 | 22.0 | 30.0 | 7.0 | | |
| | 1415 | ATHN | 47 | GB | 1222.3 | 1237.6 | 26.3D | 56 | | | |
| | 808 | ONDR | 45 | C | 1222.5 | 1237.5 | 18.0 | 22.0 | 14.0 | | |
| | 810 | KRAK | 4 | S/F | 1222.5 | 1224.7 | 9.5 | 50.0 | 10.0 | | |
| | 430 | KRAK | 7 | C | 1222.8 | 1227.3 | 8.5 | 32.0 | 16.0 | | |
| | 606 | SGMR | 4 | S/F | 1224.0 | 1225.1 | 8.0D | 180 | | | |
| | 650 | GORK | 46 | C | 1226.0E | 1237.1 | 18.0D | 14.0 | | | |
| | 127 | TORN | 42 | SER | 1230.4 | 1231.4 | 5.5 | 240.0 | | | |
| | 606 | SGMR | 4 | S/F | 1231.1 | 1236.5 | 11.9D | 32 | | | |
| | 100 | GORK | | | 1232.1 | 1234.0 | | 1730.0 | | | |
| | 100 | GORK | 46 | C | 1232.1 | 1232.9 | 7.5 | 1870.0 | | | |
| | 100 | GORK | | | 1232.1 | 1238.0 | | 570.0 | | | |
| | 15400 | SGMR | 4 | S/F | 1233.0 | 1236.3 | 11.1 | 240 | | | |
| | 430 | KRAK | 7 | C | 1234.6 | 1235.0 | 5.0 | 34.0 | 6.0 | | |
| | 810 | KRAK | 3 | S | 1235.7 | 1237.3 | 4.0 | 16.0 | 6.0 | | |
| | 2800 | OTTA | | | 1238.0E | 1239 | 4.0D | 38.4 | | | |
| | 29 | UPIC | 4 | S/F | 1239.0 | 1239.6 | .8 | | | | |
| | 536 | ONDR | 42 | SER | 1307.0 | 1328.8 | 63.0 | 17.0 | | | |
| | 127 | TORN | 5 | S | 1350.4 | 1350.9 | 1.0 | 220.0 | 110.0 | | |
| | 2800 | OTTA | 20 | GRF | 1600.0 | 1700 | 100.0 | 4.4 | 2.2 | | |
| | 9400 | HUAN | | S | 1755.4 | 1818.8 | 40.8 | 19.9 | 7.4 | | 0 |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 2800 | OTTA | 21 GRF | 1810.0 | 1819 | 30.0 | 7.6 | 2.6 | | |
| | 2800 | OTTA | 3 S | 1814.2 | 1816 | 3.5 | 10.2 | 5.1 | | |
| | 2695 | PALE | 8 S | 1815.1 | 1815.8 | 1.0 | 21 | | | |
| | 8800 | PALE | 47 GB | 1815.8 | 1822.5 | 6.2 | 33 | | | |
| | 4995 | PALE | 8 S | 1815.8 | 1815.8 | .2 | 17 | | | |
| | 2800 | OTTA | 1 S | 1823.0 | 1823.3 | 1.0 | 2.0 | 1.0 | | |
| | 245 | SGMR | 47 GB | 1853.8 | 1853.3 | .2 | 2000 | | | |
| | 8800 | SGMR | 47 GB | 1931.6 | 1937.3 | 12.4D | 1100 | | | |
| | 15400 | SGMR | 47 GB | 1932.5 | 1937.3 | 11.6 | 1199 | | | |
| | 4995 | SGMR | 47 GB | 1932.6 | 1936.0 | 13.0D | 740 | | | |
| | 4995 | PALE | 47 GB | 1932.8 | 1937.0 | 17.5 | 750 | | | |
| | 4995 | PALE | 47 GB | 1932.8 | 1937.0 | 17.5 | 750 | | | |
| | 15400 | PALE | 47 GB | 1932.8 | 1937.1 | 26.7 | 1399 | | | |
| | 8800 | PALE | 47 GB | 1932.8 | 1937.0 | 24.5 | 1600 | | | |
| | 2800 | OTTA | 23 GRF | 1933.0 | 2205 | 270.0D | 18.4 | | | |
| | 2695 | SGMR | 4 S/F | 1933.3 | 1937.0 | 13.8D | 300 | | | |
| | 2800 | OTTA | 47 GB | 1934.0 | 1937.3 | 9.0 | 605.0 | 137.0 | | |
| | 2695 | PALE | 47 GB | 1934.3 | 1937.1 | 10.3 | 560 | | | |
| | 1415 | SGMR | 4 S/F | 1934.8 | 1937.3 | 9.0 | 170 | | | |
| | 1415 | PALE | 4 S/F | 1935.3 | 1937.3 | 6.8 | 170 | | | |
| | 606 | SGMR | 4 S/F | 1936.3 | 1937.8 | 10.0D | 63 | | | |
| | 606 | PALE | 8 S | 1937.3 | 1937.8 | 1.2 | 58 | | | |
| | 410 | SGMR | 4 S/F | 1939.0 | 1939.3 | 2.3D | 220 | | | |
| | 245 | SGMR | 8 S | 1939.1 | 1939.5 | 1.2D | 74 | | | |
| | 410 | PALE | 8 S | 1939.1 | 1939.3 | .9 | 350 | | | |
| | 245 | PALE | 8 S | 1941.1 | 1941.3 | .2 | 54 | | | |
| | 2800 | OTTA | 29 PBI | 1943.6 | 1943 | 15.0 | 22.0 | 7.4 | | |
| | 2000 | TYKW | 5 S | 2259.0 | 2301.3 | 4.0 | 15.0 | 5.0 | | |
| | 3750 | TYKW | 45 C | 2259.0 | 2301.8 | 4.0 | 19.0 | 6.0 | | |
| | 9400 | TYKW | 45 C | 2300.0 | 2301.8 | 3.0 | 13.0 | 4.0 | | RAIN |
| | 2800 | OTTA | 4 S/F | 2300.5 | 2301.2 | 2.8 | 19.2 | 6.0 | | |
| | 1000 | TYKW | 5 S | 2301.0 | 2301.3 | .7 | 14.0 | 5.0 | | |
| | 3750 | TYKW | 29 PBI | 2303.0 | | 40.0 | 6.0 | 3.0 | | |
| | 9400 | TYKW | 29 PBI | 2303.0 | | 50.0U | 5.0 | 3.0U | | |
| | 2000 | TYKW | 29 PBI | 2303.0 | | 40.0 | 2.0 | 1.0 | | |
| 25 | 410 | LEAR | 43 NS | 0145.0 | 0156.8 | 534.0D | 35 | | | |
| | 200 | GORK | 44 NS | 0651.0E | | 274.0D | | 5.0 | | |
| | 260 | ONDR | 44 NS | 0800.0E | | 424.0D | 67.0 | 5.0 | | |
| | 245 | SGMR | 43 NS | 1130.0 | 2049.5 | 653.0D | 180 | | | |
| | 100 | HIRA | 44 NS | 2112.0E | 2225 | 660.0D | 300.0 | 5.0 | | |
| | 200 | HIRA | 44 NS | 2112.0E | 0334 | 660.0D | 90.0 | 20.0 | | 0 |
| | 245 | LEAR | 43 NS | 2235.0 | 0512.1 | 724.0D | 280 | | | |
| | 3750 | TYKW | 28 PRE | 0130.0 | 0222 | 69.0 | 5.0 | 3.0 | | |
| | 245 | LEAR | 8 S | 0131.8 | 0132.1 | .5 | 42 | | | |
| | 410 | LEAR | 8 S | 0132.0 | 0132.1 | .3 | 15 | | | |
| | 9400 | TYKW | 45 C | 0238.0 | 0241.4 | 52.0 | 30.0 | 9.0U | | RAIN |
| | 3750 | TYKW | 45 C | 0239.0 | 0241.5 | 61.0 | 33.0 | 7.0 | | |
| | 17000 | NOBE | 20 GRF | 0239.3 | 0249.9 | 72.0 | 16.0 | | | 0 |
| | 2695 | MANI | 4 S/F | 0239.3 | 0241.1 | 2.7D | 42 | | | |
| | 4995 | MANI | 4 S/F | 0239.3 | 0241.1 | 3.2D | 27 | | | |
| | 8800 | MANI | 4 S/F | 0239.5 | 0241.1 | 3.0 | 36 | | | |
| | 2000 | TYKW | 5 S | 0240.0 | 0241.6 | 3.0 | 34.0 | 4.0 | | |
| | 2930 | VORO | 3 S | 0240.6 | 0243 | 5.0 | 40.0 | | | |
| | 4995 | LEAR | 4 S/F | 0240.5 | 0241.3 | 4.5 | 44 | | | |
| | 15400 | LEAR | 4 S/F | 0240.5 | 0241.3 | 2.8 | 16 | | | |
| | 8800 | LEAR | 4 S/F | 0240.8 | 0241.3 | 5.5 | 42 | | | |
| | 2695 | LEAR | 8 S | 0241.0 | 0241.6 | .8 | 44 | | | |
| | 35000 | NAGO | 20 GRF | 0242.0 | 0251 | 55.0 | 9.0 | | | |
| | 2000 | TYKW | 30 PBI | 0243.0 | | 37.0 | 2.0 | 1.0 | | |
| | 606 | LEAR | 8 S | 0305.0 | 0305.1 | 1.6 | 78 | | | |
| | 410 | LEAR | 8 S | 0305.1 | 0306.1 | 1.7 | 240 | | | |
| | 245 | LEAR | 8 S | 0305.5 | 0306.6 | 1.6 | 40 | | | |
| | 2000 | TYKW | 31 ABS | 0320.0 | 0410 | 150.0 | -3.0 | -1.5 | | |
| | 9400 | TYKW | 31 ABS | 0330.0 | 0350 | 140.0 | -4.0 | -2.0 | | |
| | 3750 | TYKW | 31 ABS | 0340.0 | 0500 | 122.0 | -8.0 | -4.0 | | |
| | 2000 | TYKW | 5 S | 0423.0 | 0424.5 | 3.0 | 2.0 | .5 | | |
| | 9400 | TYKW | 45 C | 0427.0 | 0427.3 | 30.0 | 9.0 | 4.0 | | |
| | 9100 | GORK | 23 GRF | 0533.0E | 0909.6 | 390.0D | 19.0 | | | |
| | 2950 | GORK | 20 GRF | 0545.0 | 0618.0 | 102.0 | 3.0 | 1.5 | | |
| | 3100 | CRIM | 26 FAL | 0638.0 | 0824.0 | | 12.0 | | | |
| | 5200 | BERN | 1 S | 0704.0 | 0706.2 | 4.0 | 9.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 1 S | 0704.0 | 0706.2 | 4.0 | .0 | | | ONLY PAPER REC |
| | 11800 | BERN | 1 S | 0704.0 | 0705.0 | 4.0 | 42.0 | | | ONLY PAPER REC |
| | 17000 | NOBE | 1 S | 0707.6 | 0708.3 | 4.0 | 15.0 | | | 0 |
| | 15400 | LEAR | 8 S | 0708.1 | 0708.3 | .9 | 19 | | | |
| | 2950 | GORK | 1 S | 0733.8 | 0736.0 | 6.3 | 3.0 | 1.5 | | |
| | 2950 | GORK | 20 GRF | 0750.8 | 0754.0 | 14.0 | 2.0 | 1.0 | | |
| | 8800 | LEAR | 4 S/F | 0805.1 | 0806.0 | 2.9 | 10 | | | |
| | 9100 | GORK | 1 S | 0805.2 | 0806.0 | 2.5 | 10.0 | 5.0 | | |
| | 15400 | LEAR | 8 S | 0805.6 | 0806.0 | .3 | 28 | | | |
| | 606 | LEAR | 8 S | 0854.1 | 0854.3 | .5 | 13 | | | |
| | 2950 | GORK | 20 GRF | 0944.5 | 0946.4 | 12.0 | 3.0 | 1.5 | | |
| | 650 | GORK | 2 S/F | 1024.0 | 1024.5 | 5.4 | 3.5 | | | |
| | 5200 | BERN | 1 S | 1322.0 | 1324.5 | 27.0 | 12.0 | | | ONLY PAPER REC |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 25 | 3200 | BERN | 1 S | 1322.0 | 1324.5 | 27.0 | .0 | | | ONLY PAPER REC |
| | 2800 | OTTA | 24OAR | 1322.0 | 1326 | 4.0 | 5.0 | 2.5 | | |
| | 2800 | OTTA | 1 S | 1322.5 | 1324.5 | 3.0 | 8.0 | 4.0 | | |
| | 2800 | OTTA | 27AFRF | 1455.0 | | 280.0 | 5.0 | 4.4 | | |
| | 2800 | OTTA | 24 R | 1455.0 | 1530 | 35.0 | 5.0 | 2.5 | | |
| | 2800 | OTTA | 24P R | 1530.0 | | 210.0 | 5.0 | | | |
| | 2800 | OTTA | 1 S | 1630.0 | 1630.5 | 2.0 | 3.6 | 2.4 | | |
| | 2800 | OTTA | 20 GRF | 1730.0 | 1756 | 115.0 | 10.0 | 5.0 | | |
| | 9400 | HUAN | S | 1749.5 | 1825.1 | 57.9 | 9.8 | 5.8 | | 0 |
| | 2800 | OTTA | 26 FAL | 1900.0 | 1935 | 35.0 | -5.0 | -2.5 | | |
| | 2800 | OTTA | 20 GRF | 2005.0 | 2045 | 80.0 | 3.4 | 1.8 | | |
| | 2695 | PENT | 27 RF | 2148.0 | | 77.0 | 4.2 | 3.3 | | |
| | 2695 | PENT | 24 R | 2148.0 | 2157 | 9.0 | 4.2 | 2.1 | | |
| | 2695 | PENT | 24P R | 2157.0 | | 43.0 | 4.2 | | | |
| | 2695 | PENT | 26 FAL | 2240.0 | 2305 | 25.0 | -4.2 | -2.1 | | |
| | 3750 | TYKW | 5 S | 2356.0 | 2359.5 | 10.0 | 3.0 | 1.0D | | |
| | 9400 | TYKW | 5 S | 2358.0 | 2359.5 | 6.0D | 4.0 | 2.0D | | |
| 26 | 410 | LEAR | 43 NS | 0026.6 | 0648.5 | 513.4D | 40 | | | |
| | 200 | GORK | 44 NS | 0454.0E | | 486.0D | | 10.0 | | |
| | 100 | GORK | 43 NS | 0500.0 | | 480.0 | | 5.0 | | |
| | 260 | ONDR | 44 NS | 0756.0E | | 424.0D | 61.0 | 4.0 | | |
| | 127 | TORN | 43 NS | 0840.0 | 1153.2 | 400.0 | 890.0 | 4.0 | | V1 |
| | 245 | SGMR | 43 NS | 1128.0 | 1341.8 | 353.0D | 100 | | | |
| | 100 | HIRA | 44 NS | 2111.0E | 0334 | 670.0D | 2700.0 | 690.0 | | SR |
| | 200 | HIRA | 44 NS | 2111.0E | 0141 | 670.0D | 160.0 | 50.0 | | MR |
| | 245 | LEAR | 43 NS | 2303.0 | 0050.6 | 694.0D | 160 | | | |
| | 9400 | TYKW | 5 S | 0010.0 | 0013 | 20.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 21 GRF | 0010.0 | 0100 | 95.0 | 4.0 | 2.5 | | |
| | 1000 | TYKW | 5 S | 0048.5 | 0048.8 | 1.0 | 2.0 | .7 | | |
| | 3750 | TYKW | 5 S | 0048.5 | 0049.0 | 1.5 | 4.0 | 1.0 | | |
| | 2000 | TYKW | 5 S | 0048.5 | 0048.9 | 1.5 | 5.5 | 1.5 | | |
| | 9400 | TYKW | 5 S | 0114.5 | 0115.8 | 2.5 | 4.0 | 1.5 | | |
| | 3750 | TYKW | 5 S | 0115.0 | 0115.8 | 4.0 | 6.0 | 1.5 | | |
| | 2000 | TYKW | 5 S | 0115.0 | 0116.0 | 4.0 | 5.0 | 1.5 | | |
| | 3750 | TYKW | 5 S | 0127.0 | 0128.5 | 6.0 | 2.0 | 1.0 | | |
| | 3750 | TYKW | 21 GRF | 0150.0 | 0230 | 80.0 | 4.0 | 1.5 | | |
| | 9400 | TYKW | 5 S | 0200.2 | 0200.5 | 1.0 | 6.0 | 2.0 | | |
| | 9400 | TYKW | 20 GRF | 0212.0 | 0214 | 30.0U | 4.0 | 2.0 | | |
| | 2000 | TYKW | 45 C | 0212.0 | 0218.3 | 20.0 | 2.0 | 1.0 | | |
| | 4995 | LEAR | 8 S | 0342.8 | 0343.1 | 1.2 | 09 | | | |
| | 9400 | TYKW | 5 S | 0343.0 | 0343.3 | 3.0 | 28.0 | 7.0 | | |
| | 3750 | TYKW | 8 S | 0343.0 | 0343.2 | .4 | 2.0 | .7 | | |
| | 17000 | NOBE | 1 S | 0343.0 | 0343.2 | 1.1 | 12.0 | | | 0 |
| | 15400 | LEAR | 8 S | 0343.1 | 0343.1 | .2 | 19 | | | |
| | 8800 | LEAR | 8 S | 0343.1 | 0343.1 | .4 | 33 | | | |
| | 1000 | TYKW | 45 C | 0644.5 | 0645.0 | 1.0 | 37.0 | 7.0 | | |
| | 2950 | GORK | 21 GRF | 0756.0 | 0816.0 | 130.0 | 10.0 | | | |
| | 650 | GORK | 22 GRF | 0756.2 | 0758.2 | 11.6 | 8.5 | | | |
| | 9100 | GORK | 23 GRF | 0756.6 | 0831.7 | 274.0 | 13.0 | | | |
| | 950 | GORK | 40 F | 0758.8 | 0759.7 | 9.0 | 13.0 | | | |
| | 5200 | BERN | 1 S | 0813.2 | 0814.5 | 30.0 | 10.0 | | | |
| | 3200 | BERN | 1 S | 0813.2 | 0814.5 | 30.0 | .0 | | | ONLY PAPER REC |
| | 3100 | CRIM | 1 S | 0813.5 | 0814.5 | 3.0 | 17.0 | 6.0 | | |
| | 2950 | GORK | 1 S | 0813.6 | 0814.5 | 1.8 | 9.0 | 4.5 | | |
| | 2695 | LEAR | 8 S | 0813.8 | 0814.6 | 1.5 | 35 | | | |
| | 8400 | BERN | 1 S | 0813.9 | 0814.5 | 30.0 | 13.0 | | | |
| | 9100 | GORK | 1 S | 0813.9 | 0814.4 | 1.7 | 7.0 | 3.5 | | |
| | 8800 | LEAR | 8 S | 0814.1 | 0814.5 | .9 | 18 | | | |
| | 1415 | LEAR | 8 S | 0814.1 | 0814.5 | .7 | 10 | | | |
| | 4995 | LEAR | 8 S | 0814.3 | 0814.5 | .5 | 21 | | | |
| | 9100 | GORK | 1 S | 0825.7 | 0826.0 | 2.2 | 6.5 | 3.0 | | |
| | 430 | KRAK | 27 RF | 0901.0U | 0943.3 | 93.0 | 34.0 | 9.0 | | |
| | 3200 | BERN | 1 S | 0930.6 | 0936.0 | 15.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 1 S | 0930.6 | 0936.0 | 15.0 | 10.0 | | | |
| | 2950 | GORK | 1 S | 0934.8 | 0936.0 | 1.8 | 6.0 | 3.0 | | |
| | 3100 | CRIM | 1 S | 0935.0 | 0936.0 | 3.0 | 9.0 | 3.0 | | |
| | 536 | ONDR | 42 SER | 1227.5 | | 48.0 | 57.0D | | | |
| | 9400 | HUAN | S | 1237.6 | 1239.2 | 3.2 | 15.9 | 7.6 | | 0 |
| | 10715 | DWIN | 1 S | 1238.0 | 1239 | 2.0 | 20.0 | 10.0 | | |
| | 9400 | HUAN | S | 1259.1 | 1300.2 | 2.3 | 11.1 | 5.2 | | 0 |
| | 2800 | OTTA | 47 GB | 1422.0 | 1425 | 13.0 | 685.0 | 550.0 | | |
| | 8400 | BERN | 47 GB | 1422.3 | 1424.7 | 15.0 | 747.0 | | | |
| | 1415 | ATHN | 4 S/F | 1422.6 | 1424.8 | 27.2D | 350 | | | |
| | 8800 | ATHN | 47 GB | 1422.6 | 1424.8 | 15.2 | 770 | | | |
| | 2695 | ATHN | 47 GB | 1422.6 | 1424.8 | 25.7D | 600 | | | |
| | 4995 | ATHN | 47 GB | 1422.6 | 1424.8 | 7.7D | 550 | | | |
| | 5200 | BERN | 47 GB | 1422.6 | 1424.7 | 30.0 | 459.0 | | | |
| | 3200 | BERN | 47 GB | 1422.6 | 1424.6 | 30.0 | .0 | | | ONLY PAPER REC |
| | 19600 | BERN | 47 GB | 1422.8 | 1424.7 | 15.0 | 787.0 | | | |
| | 11800 | BERN | 47 GB | 1422.9 | 1424.7 | 15.0 | 879.0 | | | |
| | 10715 | DWIN | 47 GB | 1423.0 | 1424 | 8.0 | 840.0 | 200.0 | | |
| | 2650 | DWIN | 47 GB | 1423.0 | | 27.0 | 450.0D | | | |
| | 15400 | SGMR | 47 GB | 1423.5 | 1424.8 | 6.2D | 800 | | | |
| | 35000 | BERN | 47 GB | 1423.4 | 1424.2 | 15.0 | 470.0 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}Wm^{-2}Hz^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 606 | SGMR | 47 | GB | 1423.5 | 1426.1 | 13.5D | 10000 | | | |
| | 930 | BORD | 45 | C | 1423.8 | 1426.1 | 42.2 | 356.0 | 30.0 | | |
| | 536 | ONDR | 46 | C | 1423.8 | | 21.0 | 59.0D | 16.0 | | |
| | 808 | ONDR | 45 | C | 1424.0 | 1426 | 16.0 | 112.0D | 51.0 | | |
| | 410 | SGMR | 47 | GB | 1424.1 | 1424.6 | 4.9D | 560 | | | |
| | 245 | SGMR | 4 | S/F | 1424.6 | 1426.1 | 2.7 | 190 | | | |
| | 2800 | OTTA | 30 | PBI | 1435.0 | 1435 | 100.0 | 25.0 | 5.0 | | |
| | 2800 | OTTA | 1A | S | 1555.0 | 1601 | 10.0 | 5.0 | 2.5 | | |
| | 2800 | OTTA | 1 | S | 1600.0 | 1602 | 1.0 | 5.0 | 2.5 | | |
| | 930 | BORD | 46 | C | 1644.6 | 1644.8 | 1.4 | 35.0 | 3.0 | | |
| | 2800 | OTTA | 23 | GRF | 1810.0 | 2030 | 330.0 | 34.0 | | | |
| | 2800 | OTTA | 1 | S | 1819.4 | 1819.5 | 1.0 | 6.0 | 2.0 | | |
| | 2800 | OTTA | 40 | F | 1830.0 | 1932 | 70.0 | 90.0 | | | |
| | 2695 | PALE | 47 | GB | 1831.8 | 1837.8 | 2.8 | 63 | | | |
| | 4995 | PALE | 47 | GB | 1833.3 | 1837.6 | 11.7 | 38 | | | |
| | 8800 | PALE | 47 | GB | 1835.1 | 1837.6 | 9.9 | 42 | | | |
| | 410 | PALE | 8 | S | 1835.6 | 1835.8 | .7 | 86 | | | |
| | 245 | PALE | 8 | S | 1835.6 | 1836.1 | .9 | 23 | | | |
| | 15400 | PALE | 4 | S/F | 1837.6 | 1837.8 | 7.4 | 35 | | | |
| | 15400 | PALE | 4 | S/F | 1844.0 | 1850.3 | 17.0 | 20 | | | |
| | 245 | PALE | 47 | GB | 1844.8 | 1846.8 | 5.8 | 200 | | | |
| | 2695 | PALE | 4 | S/F | 1845.0 | 1846.8 | 5.8 | 40 | | | |
| | 4995 | PALE | 4 | S/F | 1845.0 | 1846.8 | 5.3 | 55 | | | |
| | 8800 | PALE | 4 | S/F | 1845.0 | 1846.8 | 5.8 | 50 | | | |
| | 1415 | PALE | 4 | S/F | 1845.1 | 1846.8 | 5.7 | 35 | | | |
| | 606 | PALE | 4 | S/F | 1845.6 | 1848.8 | 5.2 | 65 | | | |
| | 410 | PALE | 4 | S/F | 1845.6 | 1846.3 | 5.0 | 86 | | | |
| | 15400 | SGMR | 4 | S/F | 1920.0 | 1932.0 | 13.0 | 130 | | | |
| | 606 | PALE | 47 | GB | 1922.6 | 1922.8 | .7 | 1500 | | | |
| | 15400 | PALE | 8 | S | 1931.3 | 1932.1 | 1.3 | 150 | | | |
| | 410 | PALE | 47 | GB | 1931.3 | 1931.8 | 1.2 | 2000 | | | |
| | 8800 | PALE | 8 | S | 1931.3 | 1932.0 | 1.5 | 50 | | | |
| | 410 | PALE | 47 | GB | 1931.3 | 1931.8 | 1.2 | 2000 | | | |
| | 606 | PALE | 8 | S | 1931.6 | 1931.8 | 1.4 | 60 | | | |
| | 245 | PALE | 8 | S | 1931.6 | 1932.0 | .7 | 380 | | | |
| | 1415 | PALE | 8 | S | 1931.6 | 1932.1 | 1.5 | 130 | | | |
| | 4995 | PALE | 8 | S | 1931.6 | 1932.0 | .9 | 25 | | | |
| | 2695 | PALE | 8 | S | 1931.6 | 1932.1 | 2.8 | 130 | | | |
| | 1415 | PALE | 49 | GB | 1946.3 | 1950.5 | 17.7 | 790 | | | |
| | 8800 | PALE | 49 | GB | 1947.8 | 1949.8 | 8.2 | 5200 | | | |
| | 2800 | OTTA | 47 | GB | 1948.0 | 1950.2 | 16.0 | 2075.0 | 121.0 | | |
| | 4995 | PALE | 49 | GB | 1948.0 | 1949.8 | 10.0 | 3200 | | | |
| | 15400 | SGMR | 47 | GB | 1948.0 | 1951.0 | 10.0 | 4600 | | | |
| | 15400 | PALE | 49 | GB | 1948.0 | 1951.1 | 8.0 | 4200 | | | |
| | 2695 | PALE | 49 | GB | 1948.1 | 1950.1 | 15.2 | 2000 | | | |
| | 245 | PALE | 49 | GB | 1952.3 | 1952.6 | 1.7 | 930 | | | |
| | 2800 | OTTA | 3 | S | 2104.0 | 2110.5 | 25.0 | 124.0 | 52.0 | | |
| | 1000 | TYKW | 42 | SER | 2148.0 | 2154.9 | 25.0 | 34.0U | 3.0U | | |
| | 2000 | TYKW | 5 | S | 2211.0 | 2211.3 | 1.0 | 9.0 | 2.0 | | |
| | 1000 | TYKW | 42 | SER | 2217.0 | 2228.4 | 14.0 | 145.0 | 7.0U | | |
| | 9400 | TYKW | 45 | C | 2227.0 | 2228.3 | 4.0 | 32.0 | 7.0 | | |
| | 3750 | TYKW | 45 | C | 2227.0 | 2228.3 | 4.0 | 3.0 | 1.0 | | |
| | 606 | MANI | 47 | GB | 2227.0 | 2229.6 | 82.5 | 1600 | | | |
| | 2000 | TYKW | 5 | S | 2228.0 | 2228.3 | .7 | 2.5 | 1.0 | | |
| | 17000 | NOBE | 1 | S | 2228.0 | 2228.2 | 2.0 | 19.0 | | | L |
| | 9400 | TYKW | 31 | ABS | 2231.0 | 2250 | 39.0 | -8.0 | -4.5 | | |
| | 3750 | TYKW | 31 | ABS | 2231.0 | 2240 | 26.0 | -2.0 | -1.0 | | |
| | 1000 | TYKW | 42 | SER | 2244.0 | 2247.6 | 5.0 | 15.0 | 3.0 | | |
| | 1000 | TYKW | 45 | C | 2253.0 | 2254.0 | 4.5 | 100.0 | 25.0 | | |
| | 1000 | TYKW | 42 | SER | 2303.6 | 2318.6 | 20.0 | 21.0 | 1.5 | | |
| | 606 | LEAR | 47 | GB | 2303.0E | 2304.3 | 19.3 | 420 | | | |
| | 1000 | TYKW | 45 | C | 2325.5 | 2328.1 | 5.5 | 142.0 | 15.0 | | |
| | 9400 | TYKW | 45 | C | 2327.0 | 2328.0 | 4.0 | 260.0 | 35.0 | | |
| | 3750 | TYKW | 45 | C | 2327.0 | 2328.0 | 4.0 | 53.0 | 9.0 | | |
| | 2000 | TYKW | 5 | S | 2327.5 | 2328.3 | 3.5 | 33.0 | 7.0 | | |
| | 410 | LEAR | 47 | GB | 2327.6 | 2327.8 | 1.2 | 990 | | | |
| | 8800 | LEAR | 4 | S/F | 2327.6 | 2328.0 | 2.2 | 290 | | | |
| | 2695 | MANI | 47 | GB | 2327.6 | 2333.8 | 8.9D | 52 | | | 8 |
| | 2695 | PENT | 4 | S/F | 2327.7 | 2328.3 | 2.3 | 34.0 | 11.0 | | |
| | 17000 | NOBE | 7 | C | 2327.7 | 2327.9 | 6.5 | 120.0 | | | L |
| | 15400 | LEAR | 8 | S | 2327.8 | 2328.0 | .5 | 139 | | | |
| | 245 | LEAR | 47 | GB | 2327.8 | 2327.8 | .3 | 2100 | | | |
| | 1415 | LEAR | 8 | S | 2327.8 | 2328.3 | .8 | 32 | | | |
| | 2695 | LEAR | 8 | S | 2327.8 | 2328.1 | .7 | 35 | | | |
| | 4995 | LEAR | 8 | S | 2327.8 | 2328.0 | .7 | 130 | | | |
| | 606 | LEAR | 8 | S | 2327.8 | 2328.1 | .8 | 77 | | | |
| | 8800 | MANI | 47 | GB | 2328.0 | 2328.5 | 9.0 | 370 | | | |
| | 4995 | MANI | 47 | GB | 2328.0 | 2328.3 | 9.0D | 92 | | | |
| | 1415 | MANI | 47 | GB | 2328.0 | 2332.6 | 9.0D | 640 | | | |
| | 9400 | TYKW | 31 | ABS | 2331.0 | 2340 | 27.0 | -12.0 | -8.0 | | |
| | 3750 | TYKW | 31 | ABS | 2331.0 | 2339 | 26.0 | -8.0 | -4.0 | | |
| | 1000 | TYKW | 47 | GB | 2331.0 | 2333.6 | 5.0 | 4500.0 | 350.0 | | |
| | 500 | HIRA | 46 | C | 2331.6 | 2332.0 | 5.0 | 1900.0 | 250.0 | | WRWL |
| | 245 | LEAR | 47 | GB | 2331.6 | 2332.3 | 6.9 | 9400 | | | |
| | 1415 | LEAR | 47 | GB | 2331.8 | 2332.1 | 2.2 | 540 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 2695 | PENT | 4 S/F | 2331.8 | 2333.4 | 3.5 | 52.0 | 18.0 | | |
| | 2000 | TYKW | 45 C | 2331.8 | 2333.4 | 4.2 | 72.0 | 13.0 | | |
| | 3750 | TYKW | 45 C | 2332.0 | 2333.2 | 2.5 | 28.0 | 7.0 | | |
| | 9400 | TYKW | 45 C | 2332.5 | 2333.2 | 1.5 | 28.0 | 9.0 | | |
| | 606 | LEAR | 47 GB | 2332.6 | 2332.8 | 4.5 | 1199 | | | |
| | 410 | LEAR | 47 GB | 2332.6 | 2332.8 | .7 | 940 | | | |
| | 2695 | LEAR | 8 S | 2332.6 | 2333.3 | 1.2 | 53 | | | |
| | 4995 | LEAR | 8 S | 2332.6 | 2333.3 | 1.2 | 23 | | | |
| | 15400 | LEAR | 8 S | 2332.6 | 2333.1 | 1.0 | 27 | | | |
| | 8800 | LEAR | 8 S | 2333.1 | 2333.1 | .2 | 23 | | | |
| | 2000 | TYKW | 31 ABS | 2336.0 | 2340 | 20.0 | -4.0 | -2.0 | | |
| 27 | 410 | LEAR | 43 NS | 0016.0 | 0602.5 | 544.5 | 48 | | | |
| | 200 | GORK | 44 NS | 0457.0E | | 423.0D | | 30.0 | | |
| | 100 | GORK | 44 NS | 0503.0D | | 417.0D | | 60.0 | | |
| | 606 | LEAR | 43 NS | 0520.5 | 0545.3 | 145.0 | 390 | | | |
| | 127 | TORN | 44 NS | 0700.0E | 1439.4 | 500.0D | 12000.0D | 175.0 | | V1 |
| | 204 | IZMI | 44 NS | 0700.0E | | 300.0D | 77.0 | | | |
| | 536 | ONDR | 44 NS | 0802.0E | | 421.0D | 39.0 | | | |
| | 260 | ONDR | 44 NS | 0802.0E | | 421.0D | 64.0 | 5.0 | | |
| | 245 | SGMR | 43 NS | 1127.0 | 1532.3 | 659.0D | 370 | | | |
| | 200 | HIRA | 44 NS | 2106.0E | 0430 | 680.0D | 150.0 | 65.0 | | MR |
| | 100 | HIRA | 44 NS | 2106.0E | 2245 | 680.0D | 350.0 | 30.0 | | SR |
| | 245 | LEAR | 43 NS | 2236.0 | 0600.1 | 720.0D | 170 | | | |
| | 410 | LEAR | 43 NS | 2335.5 | 0517.3 | 589.5 | 34 | | | |
| | 606 | LEAR | 47 GB | 0000.1 | 0130.3 | 100.4 | 1199 | | | |
| | 606 | MANI | 47 GB | 0001.5 | 0129.6 | 206.0D | 760 | | | |
| | 3750 | TYKW | 21 GRF | 0006.0 | 0050 | 98.0 | 8.0 | 3.0 | | |
| | 1415 | MANI | 4 S/F | 0017.0 | 0213.1 | 117.0D | 43 | | | |
| | 2695 | MANI | 4 S/F | 0017.0 | 0035.3 | 91.0D | 35 | | | |
| | 1000 | TYKW | 45 C | 0019.3 | 0019.5 | 1.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 21 GRF | 0020.0 | 0050 | 90.0 | 4.0 | 2.0 | | |
| | 4995 | MANI | 4 S/F | 0020.5 | 0114.5 | 61.6D | 18 | | | |
| | 3750 | TYKW | 5 S | 0027.0 | 0029 | 15.0 | 4.5 | 2.0 | | |
| | 2000 | TYKW | 5 S | 0028.0 | 0033.6 | 10.0 | 5.0 | 1.0 | | |
| | 3750 | TYKW | 5 S | 0033.2 | 0033.6 | 1.0 | 3.5 | 1.0 | | |
| | 410 | LEAR | 8 S | 0037.3 | 0038.1 | 1.7 | 58 | | | |
| | 200 | HIRA | 46 C | 0037.7 | 0038.2 | 1.3 | 750.0 | 240.0 | | WR |
| | 245 | LEAR | 47 GB | 0037.8 | 0038.3 | .7 | 940 | | | |
| | 1000 | TYKW | 45 C | 0038.0 | 0038.4 | .8 | 5.0 | 1.0 | | |
| | 1000 | TYKW | 42 SER | 0048.0 | 0142.0 | 55.0 | 165.0 | 12.0 | | |
| | 9400 | TYKW | 5 S | 0113.0 | 0114.2 | 3.0 | 11.0 | 4.0 | | |
| | 3750 | TYKW | 45 C | 0113.0 | 0114.5 | 8.0 | 13.0 | 6.0 | | |
| | 4995 | LEAR | 8 S | 0113.6 | 0114.6 | 1.2 | 22 | | | |
| | 9400 | TYKW | 30 PBI | 0116.0 | | 30.0 | 4.0 | 2.0 | | |
| | 2000 | TYKW | 5 S | 0119.0 | 0119.6 | 1.5 | 2.0 | .5 | | |
| | 3750 | TYKW | 30 PBI | 0121.0 | | 23.0 | 4.0 | 2.0 | | |
| | 8800 | MANI | 4 S/F | 0128.0 | 0135.3 | 21.5 | 74 | | | |
| | 17000 | NOBE | 7 C | 0133.2 | 0134.9 | 3.5 | 41.0 | | | 0 |
| | 3750 | TYKW | 45 C | 0134.0 | 0135.2 | 3.0 | 9.0 | 1.5 | | |
| | 2000 | TYKW | 45 C | 0134.0 | 0134.7 | 3.0 | 19.0 | 3.0 | | |
| | 9400 | TYKW | 45 C | 0134.0 | 0135.2 | 3.0 | 27.0 | 4.0 | | |
| | 500 | HIRA | 46 C | 0134.0 | 1034.4 | 2.0 | 300.0 | 30.0 | | MR |
| | 245 | LEAR | 47 GB | 0134.3 | 0134.5 | .3 | 970 | | | |
| | 410 | LEAR | 8 S | 0134.3 | 0134.5 | .3 | 450 | | | |
| | 15400 | LEAR | 8 S | 0134.5 | 0135.1 | .8 | 60 | | | |
| | 500 | HIRA | 46 C | 0140.5 | 0141.7 | 2.3 | 200.0 | 50.0 | | MR |
| | 3750 | TYKW | 5 S | 0140.6 | 0140.9 | 1.0 | 7.0 | 2.0 | | |
| | 2000 | TYKW | 5 S | 0140.6 | 0141.0 | 1.0 | 3.0 | 1.0 | | |
| | 9400 | TYKW | 5 S | 0140.6 | 0140.8 | 1.0 | 16.0 | 6.0 | | |
| | 410 | LEAR | 4 S/F | 0140.6 | 0142.0 | 2.2 | 100 | | | |
| | 245 | LEAR | 4 S/F | 0140.6 | 0142.1 | 2.2 | 139 | | | |
| | 2695 | LEAR | 8 S | 0140.6 | 0140.8 | .7 | 05 | | | |
| | 8800 | LEAR | 8 S | 0140.6 | 0140.8 | .7 | 25 | | | |
| | 4995 | LEAR | 8 S | 0140.6 | 0140.8 | .7 | 17 | | | |
| | 1415 | LEAR | 8 S | 0140.8 | 0141.3 | 1.3 | 11 | | | |
| | 606 | LEAR | 4 S/F | 0140.8 | 0142.1 | 3.0 | 180 | | | |
| | 606 | LEAR | 47 GB | 0146.3 | 0309.8 | 92.8 | 1900 | | | |
| | 1000 | TYKW | 8 S | 0152.7 | 0152.9 | .4 | 7.0 | 1.5 | | |
| | 9400 | TYKW | 5 S | 0202.0 | 0210 | 15.0 | 3.0 | 1.5 | | |
| | 9400 | TYKW | 5 S | 0207.0 | 0207.2 | 1.0 | 6.0 | 1.5 | | |
| | 3750 | TYKW | 5 S | 0207.0 | 0213 | 20.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 8 S | 0207.1 | 0207.3 | .4 | 13.0 | 2.5 | | |
| | 2000 | TYKW | 21 GRF | 0210.0 | 0334 | 180.0 | 4.0 | 1.5 | | |
| | 1000 | TYKW | 45 C | 0212.2 | 0213.1 | 1.5 | 74.0 | 10.0 | | |
| | 1000 | TYKW | 42 SER | 0219.0 | 0223.8 | 8.5 | 18.0 | 1.5 | | |
| | 3750 | TYKW | 5 S | 0230.0 | 0233 | 15.0 | 3.0 | 1.0 | | |
| | 1000 | TYKW | 45 C | 0240.5 | 0240.6 | 1.5 | 16.0 | 3.0 | | |
| | 1000 | TYKW | 42 SER | 0311.8 | 0313.6 | 4.5 | 37.0 | 1.5 | | |
| | 606 | LEAR | 4 S/F | 0324.5 | 0345.6 | 46.8 | 94 | | | |
| | 1000 | TYKW | 42 SER | 0325.5 | 0418.3 | 85.0 | 44.0 | 3.0 | | |
| | 9400 | TYKW | 5 S | 0403.0 | 0404.1 | 2.0 | 17.0 | 3.0 | | |
| | 3750 | TYKW | 5 S | 0403.5 | 0404.1 | 1.5 | 7.0 | 2.0 | | |
| | 2000 | TYKW | 5 S | 0403.5 | 0404.1 | 2.5 | 6.0 | 1.5 | | |
| | 606 | LEAR | 8 S | 0403.6 | 0404.1 | .9 | 139 | | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 27 | 8800 | LEAR | 8 | S | 0403.8 | 0404.1 | .3 | 23 | | | |
| | 9400 | TYKW | 29 | PBI | 0405.0 | | 15.0 | 3.0 | 1.5 | | |
| | 3750 | TYKW | 5 | S | 0440.0 | 0446 | 15.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 | S | 0440.0 | 0449 | 15.0 | 4.0 | 2.0 | | |
| | 1000 | TYKW | 8 | S | 0453.0 | 0453.1 | .2 | 4.0 | 1.0 | | |
| | 3750 | TYKW | 5 | S | 0456.5 | 0457.2 | 2.0 | 4.0 | 1.5 | | |
| | 4995 | LEAR | 8 | S | 0456.6 | 0457.1 | 1.0 | 10 | | | |
| | 15400 | LEAR | 8 | S | 0456.6 | 0457.1 | .9 | 11 | | | |
| | 9400 | TYKW | 5 | S | 0456.7 | 0457.0 | 2.0 | 34.0 | 8.0 | | |
| | 1000 | TYKW | 45 | C | 0456.7 | 0457.3 | 3.0 | 35.0 | 4.0 | | |
| | 200 | HIRA | 46 | C | 0456.7 | 0457.2 | 1.1 | 900.0 | 270.0 | | WR |
| | 100 | HIRA | 46 | C | 0456.6 | 0456.8 | 1.2 | 11000.0 | 2600.0 | | WR |
| | 2000 | TYKW | 5 | S | 0456.8 | 0457.4 | 3.0 | 4.0 | 1.5 | | |
| | 17000 | NOBE | 1 | S | 0456.8 | 0457.0 | .8 | 9.0 | | | L |
| | 245 | LEAR | 8 | S | 0456.8 | 0457.3 | 1.3 | 230 | | | |
| | 606 | LEAR | 8 | S | 0456.8 | 0457.1 | .5 | 82 | | | |
| | 8800 | LEAR | 8 | S | 0456.8 | 0457.0 | .5 | 38 | | | |
| | 1415 | LEAR | 8 | S | 0457.1 | 0457.3 | .5 | 10 | | | |
| | 650 | GORK | 4 | S/F | 0459.7 | 0500.9 | 2.1 | 50.0 | | | |
| | 650 | GORK | 23 | GRF | 0500.0E | | 300.0D | 95.0 | | | |
| | 606 | LEAR | 47 | GB | 0500.6 | 0501.3 | 2.0 | 160 | | | |
| | 650 | GORK | 46 | C | 0508.1 | 0509.5 | 7.2 | 50.0 | | | |
| | 650 | GORK | | | 0508.1 | 0512.5 | | 80.0 | | | |
| | 606 | LEAR | 47 | GB | 0509.3 | 0513.1 | 5.3 | 110 | | | |
| | 3750 | TYKW | 28 | PRE | 0510.0 | 0522 | 29.0 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 5 | S | 0532.9 | 0533.0 | 1.0 | 2.5 | .5 | | |
| | 2000 | TYKW | 5 | S | 0539.0 | 0540.4 | 5.0 | 7.0 | 2.0 | | |
| | 3750 | TYKW | 45 | C | 0539.0 | 0540.2 | 14.0 | 13.0 | 7.0 | | |
| | 1000 | TYKW | 45 | C | 0539.0 | 0540.5 | 4.0 | 7.0 | 2.0 | | |
| | 2950 | GORK | 20 | GRF | 0550.0 | 0610.0 | 60.0 | 5.0 | 2.5 | | |
| | 3750 | TYKW | 30 | PBI | 0553.0 | | 90.0 | 3.0 | 1.5 | | |
| | 2000 | TYKW | 45 | C | 0601.0 | 0601.4 | 1.0 | 4.0 | 1.5 | | |
| | 1000 | TYKW | 8 | S | 0636.9 | 0637.0 | .3 | 3.0 | 1.0 | | |
| | 2000 | TYKW | 45 | C | 0641.0 | 0646.7 | 30.0 | 3.0 | .7 | | |
| | 3750 | TYKW | 45 | C | 0641.0 | 0647.0 | 30.0 | 6.0 | 2.0 | | |
| | 810 | KRAK | 42 | SER | 0816.0 | 0845.5 | 30.0 | 99.0 | | | |
| | 930 | BORD | 46 | C | 0818.4 | 0818.7 | .7 | 24.0 | 3.0 | | |
| | 2950 | GORK | 20 | GRF | 0826.3 | 0836.0 | 42.0 | 3.0 | 1.5 | | |
| | 930 | BORD | 42 | SER | 0833.6 | 0844.4 | 13.0 | 190.0 | 2.0 | | |
| | 29 | UPIC | 8 | S | 0946.6 | 0946.9 | .6 | | | | |
| | 9100 | GORK | 22 | GRF | 0950.2 | 1004.6 | 68.0 | 12.0 | | | |
| | 2950 | GORK | 1 | S | 1000.6 | 1004.0 | 8.1 | 3.0 | 1.5 | | |
| | 3100 | CRIM | 26 | FAL | 1010.0 | 1027.0 | | 12.0 | | | |
| | 204 | IZMI | 41 | F | 1023.5 | 1024.0 | 2.0 | 170.0 | | | |
| | 930 | BORD | 41 | F | 1055.4 | 1056.4 | 1.0 | 13.0 | 2.0 | | |
| | 810 | KRAK | 8 | S | 1204.0 | 1204.3 | .5 | 9.0 | | | |
| | 410 | SGMR | 4 | S/F | 1206.1 | 1206.3 | 3.2D | 57 | | | |
| | 606 | SGMR | 8 | S | 1209.0 | 1209.1 | .1 | 22 | | | |
| | 430 | KRAK | 42 | SER | 1235.0 | 1235.0 | 33.5 | 150.0 | | | |
| | 430 | KRAK | | | 1235.0 | 1306.2 | | 130.0 | | | |
| | 228 | HARS | 45 | C | 1357.5 | 1357.8 | 1.6 | 365.0 | 100.0 | | |
| | 228 | HARS | 45 | C | 1359.8 | 1400.0 | 1.0 | 415.0 | 60.0 | | |
| | 228 | HARS | 45 | C | 1408.0 | 1408.2 | .5 | 390.0 | 60.0 | | |
| | 2800 | OTTA | 20 | GRF | 1615.0 | 1620 | 20.0 | 2.4 | 1.7 | | |
| | 2800 | OTTA | 20 | GRF | 1800.0 | 1810 | 20.0 | 2.4 | 1.2 | | |
| | 9400 | HUAN | | S | 1801.0 | 1811.0 | 32.8 | 8.4 | 6.2 | | 0 |
| | 2800 | OTTA | 21 | GRF | 1900.0 | 2007 | 280.0 | 21.8 | 9.0 | | |
| | 2800 | OTTA | 4 | S/F | 1953.0 | 1957.5 | 11.0 | 22.2 | 11.1 | | |
| | 2695 | PENT | 2 | S/F | 2010.0 | 2012.2 | 4.5 | 8.8 | 4.0 | | |
| | 2800 | OTTA | 4 | S/F | 2021.5 | 2024 | 5.5 | 80.0 | 50.0 | | |
| | 2800 | OTTA | 30 | PBI | 2027.0 | 2027 | 20.0 | 11.6 | 5.8 | | |
| | 2800 | OTTA | 1 | S | 2029.5 | 2030 | 1.5 | 6.2 | 3.1 | | |
| | 2800 | OTTA | 1 | S | 2040.2 | 2043.2 | 2.0 | 6.2 | 4.0 | | |
| | 3750 | TYKW | 45 | C | 2250.0 | 2309.3 | 60.0 | 27.0 | 8.0 | | |
| | 2000 | TYKW | 21 | GRF | 2300.0 | 2315 | 40.0 | 7.0 | 3.5 | | |
| | 2695 | PENT | 22 | GRF | 2300.6 | 2309 | 20.0 | 13.0 | 6.0 | | |
| | 9400 | TYKW | 45 | C | 2304.0 | 2317.0 | 16.0 | 10.0 | 5.0 | | |
| | 1000 | TYKW | 45 | C | 2307.0 | 2307.7 | .8 | 14.0 | 6.0 | | |
| | 1000 | TYKW | 45 | C | 2308.8 | 2309.2 | 1.0 | 12.0 | 4.0 | | |
| | 1000 | TYKW | 8 | S | 2314.0 | 2314.1 | .2 | 5.0 | 1.5 | | |
| | 9400 | TYKW | 29 | PBI | 2320.0 | | 35.0 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 5 | S | 2323.0 | 2323.3 | 1.0 | 1.5 | .5 | | |
| | 1000 | TYKW | 8 | S | 2323.7 | 2323.8 | .2 | 4.0 | 1.5 | | |
| 28 | 606 | LEAR | 43 | NS | 0450.0 | 0458.0 | 250.0 | 26 | | | |
| | 200 | GORK | 44 | NS | 0500.0E | | 409.0D | | 10.0 | | |
| | 100 | GORK | 44 | NS | 0500.0E | | 410.0D | | 10.0 | | |
| | 127 | TORN | 44 | NS | 0700.0E | 1201.5 | 500.0D | 60.0 | 28.0 | | V0 |
| | 260 | ONDR | 44 | NS | 0750.0E | | 430.0D | 34.0 | 5.0 | | |
| | 245 | SGMR | 43 | NS | 1125.0 | 1636.3 | 663.0D | 150 | | | |
| | 200 | HIRA | 44 | NS | 2109.0E | 2204 | 680.0D | 65.0 | 40.0 | | MR |
| | 245 | LEAR | 43 | NS | 2237.0 | 0056.8 | 719.0D | 139 | | | |
| | 100 | HIRA | 43 | NS | 2350.0E | 0100 | 490.0D | 290.0 | 40.0 | | SR |
| | 2000 | TYKW | 21 | GRF | 0010.0 | 0021.4 | 40.0 | 5.0 | 1.5 | | |
| | 3750 | TYKW | 21 | GRF | 0010.0 | 0035 | 150.0 | 6.0 | 3.5 | | |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME | TIME OF MAXIMUM | DURATION | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ | | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UT | UT | MINUTES | PEAK | MEAN | | |
| 28 | 1000 | TYKW | 45 C | 0020.0 | 0021.5 | 3.0 | 4.0 | .7 | | |
| | 9400 | TYKW | 45 C | 0020.0 | 0021.3 | 4.0 | 8.0 | 2.5 | | |
| | 3750 | TYKW | 45 C | 0020.0 | 0021.3 | 4.0 | 5.0 | 1.5 | | |
| | 606 | LEAR | 4 S/F | 0020.1 | 0020.5 | 2.2 | 25 | | | |
| | 9400 | TYKW | 5 S | 0039.0 | 0040.2 | 4.0 | 22.0 | 4.0 | | |
| | 2000 | TYKW | 5 S | 0039.0 | 0040.3 | 5.0 | 23.0 | 5.0 | | |
| | 3750 | TYKW | 5 S | 0039.0 | 0040.2 | 3.0 | 32.0 | 10.0 | | |
| | 2695 | PENT | 3 S | 0039.6 | 0040.3 | 1.5 | 31.0 | 15.0 | | |
| | 1415 | LEAR | 8 S | 0039.6 | 0040.1 | .9 | 68 | | | |
| | 410 | LEAR | 8 S | 0039.8 | 0040.0 | .3 | 25 | | | |
| | 2695 | LEAR | 8 S | 0039.8 | 0040.3 | .8 | 34 | | | |
| | 8800 | LEAR | 8 S | 0039.8 | 0040.1 | .5 | 29 | | | |
| | 4995 | LEAR | 8 S | 0039.8 | 0040.1 | .5 | 28 | | | |
| | 606 | LEAR | 8 S | 0039.8 | 0040.0 | .3 | 20 | | | |
| | 1000 | TYKW | 5 S | 0039.6 | 0040.3 | 2.0 | 36.0 | 7.0 | | |
| | 3750 | TYKW | 29 PBI | 0042.0 | | 7.0 | 2.0 | 1.0 | | |
| | 1000 | TYKW | 5 S | 0051.8 | 0052.3 | .8 | 2.0 | .7 | | |
| | 3750 | TYKW | 5 S | 0120.0 | 0122.2 | 6.0 | 5.0 | 1.5 | | |
| | 1000 | TYKW | 45 C | 0120.0 | 0120.4 | 1.5 | 5.0 | 1.0 | | |
| | 2000 | TYKW | 45 C | 0120.0 | 0120.7 | 3.0 | 4.0 | .5 | | |
| | 410 | LEAR | 8 S | 0120.0 | 0120.1 | .3 | 18 | | | |
| | 606 | LEAR | 8 S | 0120.1 | 0120.5 | .7 | 85 | | | |
| | 1415 | LEAR | 8 S | 0120.1 | 0120.3 | .2 | 18 | | | |
| | 3750 | TYKW | 5 S | 0408.0 | 0411 | 15.0 | 2.0 | 1.0 | | |
| | 9400 | TYKW | 5 S | 0439.0 | 0440.3 | 3.0 | 14.0 | 4.0 | | |
| | 17000 | NOBE | 1 S | 0439.9 | 0440.2 | 2.0 | 16.0 | | | L |
| | 3750 | TYKW | 5 S | 0440.0 | 0440.7 | 12.0 | 3.0 | 1.0 | | |
| | 8800 | LEAR | 8 S | 0440.1 | 0440.3 | .9 | 17 | | | |
| | 15400 | LEAR | 8 S | 0440.1 | 0440.3 | .9 | 19 | | | |
| | 2000 | TYKW | 8 S | 0440.2 | 0440.4 | .4 | 9.0 | 2.0 | | |
| | 9400 | TYKW | 30 PBI | 0442.0 | | 25.0 | 5.0 | 2.0 | | |
| | 9400 | TYKW | 5 S | 0456.5 | 0457.0 | 1.5 | 3.0 | 1.0 | | |
| | 650 | GORK | 22 GRF | 0500.0E | 0642.6 | 1414.0D | 16.0 | | | |
| | 9400 | TYKW | 45 C | 0534.0 | 0556.0 | 24.0 | 5.0 | 2.0 | | |
| | 3750 | TYKW | 45 C | 0534.5 | 0537 | 20.0 | 5.0 | 2.0 | | |
| | 2000 | TYKW | 45 C | 0604.0 | 0608.3 | 20.0 | 20.0 | 6.0D | | |
| | 3750 | TYKW | 45 C | 0606.0 | 0613.8 | 14.0 | 6.0 | 3.0 | | |
| | 1000 | TYKW | 5 S | 0606.0U | 0609 U | 8.0U | 3.0U | 1.0U | | |
| | 3750 | TYKW | 30 PBI | 0620.0 | | 80.0 | 3.0 | 1.5 | | |
| | 9100 | GORK | 21 GRF | 0623.0E | 0654.0 | 48.0D | 10.0 | | | |
| | 2000 | TYKW | 30 PBI | 0624.0 | | 60.0 | 4.0 | 2.0 | | |
| | 6100 | KISV | 3 S | 0629.5 | 0630.5 | 2.0 | 4.0 | | | |
| | 9400 | TYKW | 5 S | 0630.0 | 0630.5 | 1.0 | 11.0 | 5.0 | | |
| | 8800 | LEAR | 8 S | 0630.1 | 0630.3 | .7 | 16 | | | |
| | 9100 | GORK | 1 S | 0630.7 | 0631.5 | 2.0 | 11.0 | 5.0 | | |
| | 9400 | TYKW | 29 PBI | 0631.0 | | 20.0 | 3.0 | 1.5 | | |
| | 2000 | TYKW | 45 C | 0701.0 | 0704.0 | 10.0 | 5.0 | 1.0 | | |
| | 3200 | BERN | 1 S | 0702.5 | 0704.0 | 9.0 | .0 | | | ONLY PAPER REC |
| | 5200 | BERN | 1 S | 0702.5 | 0704.0 | 9.0 | 16.0 | | | |
| | 8400 | BERN | 1 S | 0702.5 | 0704.0 | 6.0 | 17.0 | | | |
| | 9400 | TYKW | 45 C | 0703.5 | 0704.1 | 10.0 | 9.0 | 2.0 | | |
| | 3750 | TYKW | 45 C | 0703.5 | 0704.1 | 6.0 | 12.0 | 2.0 | | |
| | 8800 | LEAR | 8 S | 0703.6 | 0704.0 | 1.4 | 13 | | | |
| | 2695 | LEAR | 8 S | 0703.6 | 0704.0 | 1.4 | 20 | | | |
| | 1000 | TYKW | 42 SER | 0703.7 | 0703.9 | 1.0 | 10.0 | 2.0 | | |
| | 6100 | KISV | 8 S | 0703.7 | 0704.0 | 2.0 | 8.0 | | | |
| | 4995 | LEAR | 8 S | 0703.8 | 0704.1 | .8 | 18 | | | |
| | 9100 | GORK | 1 S | 0704.4 | 0705.0 | .9 | 8.0 | 4.0 | | |
| | 606 | LEAR | 8 S | 0706.3 | 0706.6 | .8 | 460 | | | |
| | 1000 | TYKW | 45 C | 0750.2 | 0750.4 | .4 | 22.0 | 6.0 | | |
| | 1000 | TYKW | 45 C | 0751.2 | 0751.6 | .8 | 40.0 | 12.0 | | |
| | 606 | LEAR | 8 S | 0903.6 | 0904.1 | .7 | 160 | | | |
| | 1415 | LEAR | 8 S | 0903.8 | 0904.6 | 1.0 | 29 | | | |
| | 410 | LEAR | 8 S | 0904.1 | 0904.1 | .2 | 13 | | | |
| | 930 | BORD | 41 F | 0913.3 | 0913.8 | .4 | 62.0 | 2.0 | | |
| | 930 | BORD | 41 F | 0925.6 | 0926.2 | .8 | 36.0 | 2.0 | | |
| | 2950 | GORK | 20 GRF | 1000.4U | 1100.0 | 168.0U | 5.0 | 2.5 | | |
| | 536 | ONDR | 8 S | 1000.5 | 1000.5 | .3 | 42.0 | | | |
| | 930 | BORD | 8 S | 1008.7 | 1008.7 | .1 | 21.0 | 1.0 | | |
| | 11800 | BERN | 1 S | 1203.5 | 1204.7 | 3.0 | 50.0 | | | ONLY PAPER REC |
| | 3200 | BERN | 1 S | 1203.5 | 1204.7 | 3.0 | .0 | | | ONLY PAPER REC |
| | 19600 | BERN | 1 S | 1203.5 | 1204.7 | 1.0 | 37.0 | | | ONLY PAPER REC |
| | 5200 | BERN | 1 S | 1203.5 | 1204.7 | 3.0 | 7.0 | | | ONLY PAPER REC |
| | 8400 | BERN | 1 S | 1203.5 | 1204.7 | 3.0 | 16.0 | | | ONLY PAPER REC |
| | 10715 | DWIN | 1 S | 1204.0 | 1204.5 | 1.0 | 40.0 | 20.0 | | |
| | 9400 | HUAN | S | 1204.0 | 1204.7 | 1.6 | 21.6 | 6.2 | | 0 |
| | 536 | ONDR | 42 SER | 1249.4 | 1405.2 | 76.0 | 45.0 | | | |
| | 2800 | OTTA | 21 GRF | 1630.0 | 1810 | 220.0 | 4.0 | 2.0 | | |
| | 2800 | OTTA | 1 S | 1851.0 | 1851.5 | 6.0 | 8.4 | 2.8 | | |
| | 2695 | SGMR | 4 S/F | 1851.0 | 1851.5 | 5.0D | 07 | | | |
| | 4995 | SGMR | 4 S/F | 1851.1 | 1851.5 | 2.9D | 19 | | | |
| | 8800 | SGMR | 8 S | 1851.1 | 1851.6 | 1.9 | 19 | | | |
| | 9400 | HUAN | S | 1851.1 | 1851.6 | 1.7 | 12.3 | 5.9 | | 0 |
| | 2800 | OTTA | 22 GRF | 2030.0 | 2300 | 220.0 | 8.6 | 3.0 | | |
| | 9400 | HUAN | S | 2035.7 | 2036.1 | 1.1 | 49.2 | 14.6 | | 0 |

# SOLAR RADIO EMISSION
# OUTSTANDING OCCURRENCES

FEBRUARY 1981

| DAY OF MONTH | FREQUENCY | STATION | TYPE | STARTING TIME UT | TIME OF MAXIMUM UT | DURATION MINUTES | FLUX DENSITY $10^{-22}$ Wm$^{-2}$ Hz$^{-1}$ PEAK | FLUX DENSITY MEAN | INT | POLARIZATION OR REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 3750 | TYKW | 21 GRF | 2255.0 | 2332 | 60.0 | 6.0 | 2.5 | | |
| | 15400 | LEAR | 8 S | 2349.3 | 2349.6 | .5 | 20 | | | |
| | 4995 | LEAR | 8 S | 2349.3 | 2349.8 | .7 | 06 | | | |
| | 2695 | LEAR | 8 S | 2349.3 | 2349.6 | .5 | 10 | | | |
| | 8800 | LEAR | 8 S | 2349.3 | 2349.8 | .7 | 15 | | | |

Reports are received routinely from the following observatories:

ABST = Abastumania
ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Izmiran
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
TRST = Trieste
UPIC = Upice
VORD = Voroshilov

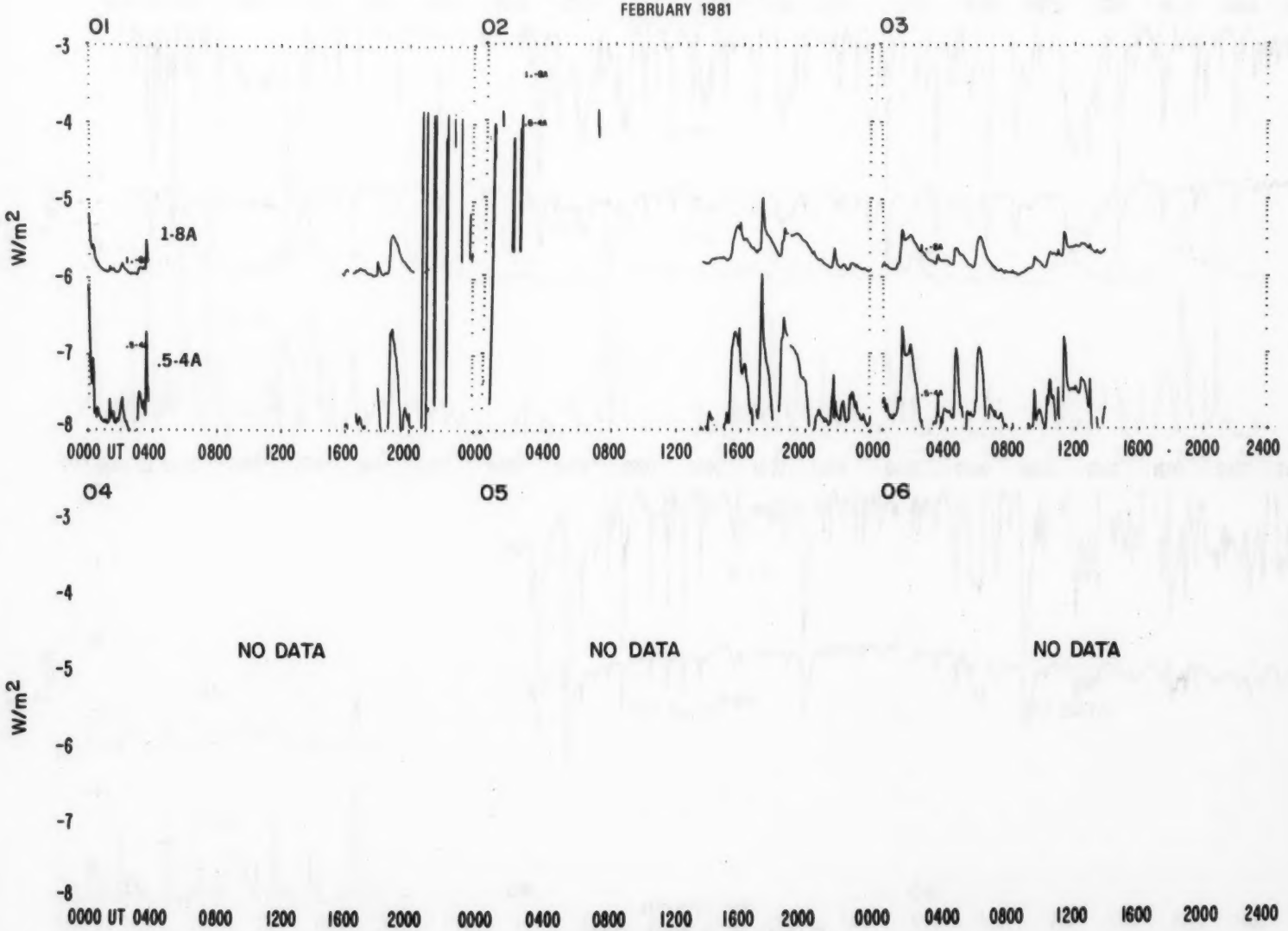
Explanation of Type Code:

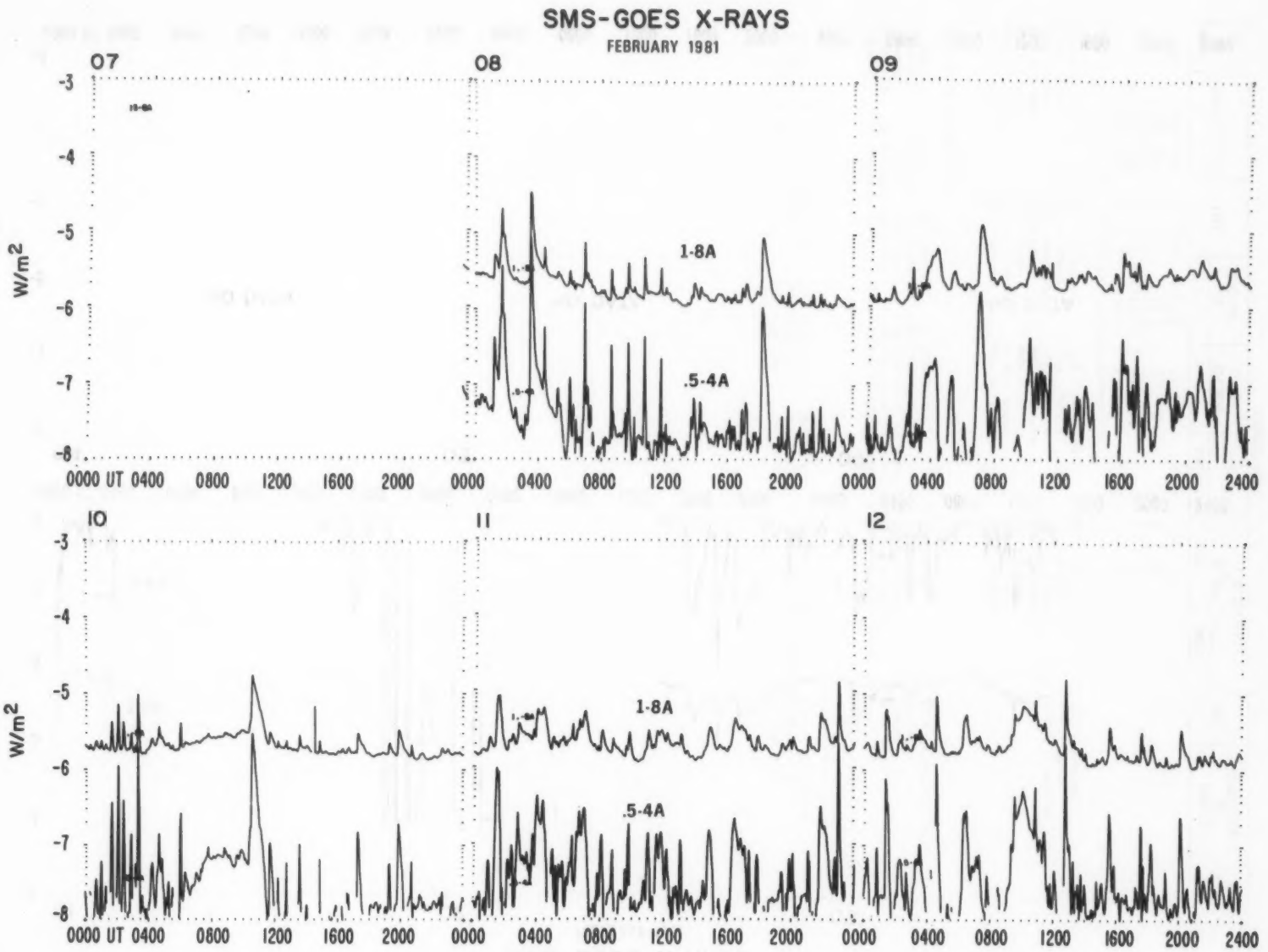
1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

1A Simple 1A
2A Simple 1AF
3A Simple 2A
4A Simple 2AF
21A Simple 3A GRF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
26A Fall A
260 Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A P.B. Decrease A
32A Absorption A
46F Complex F

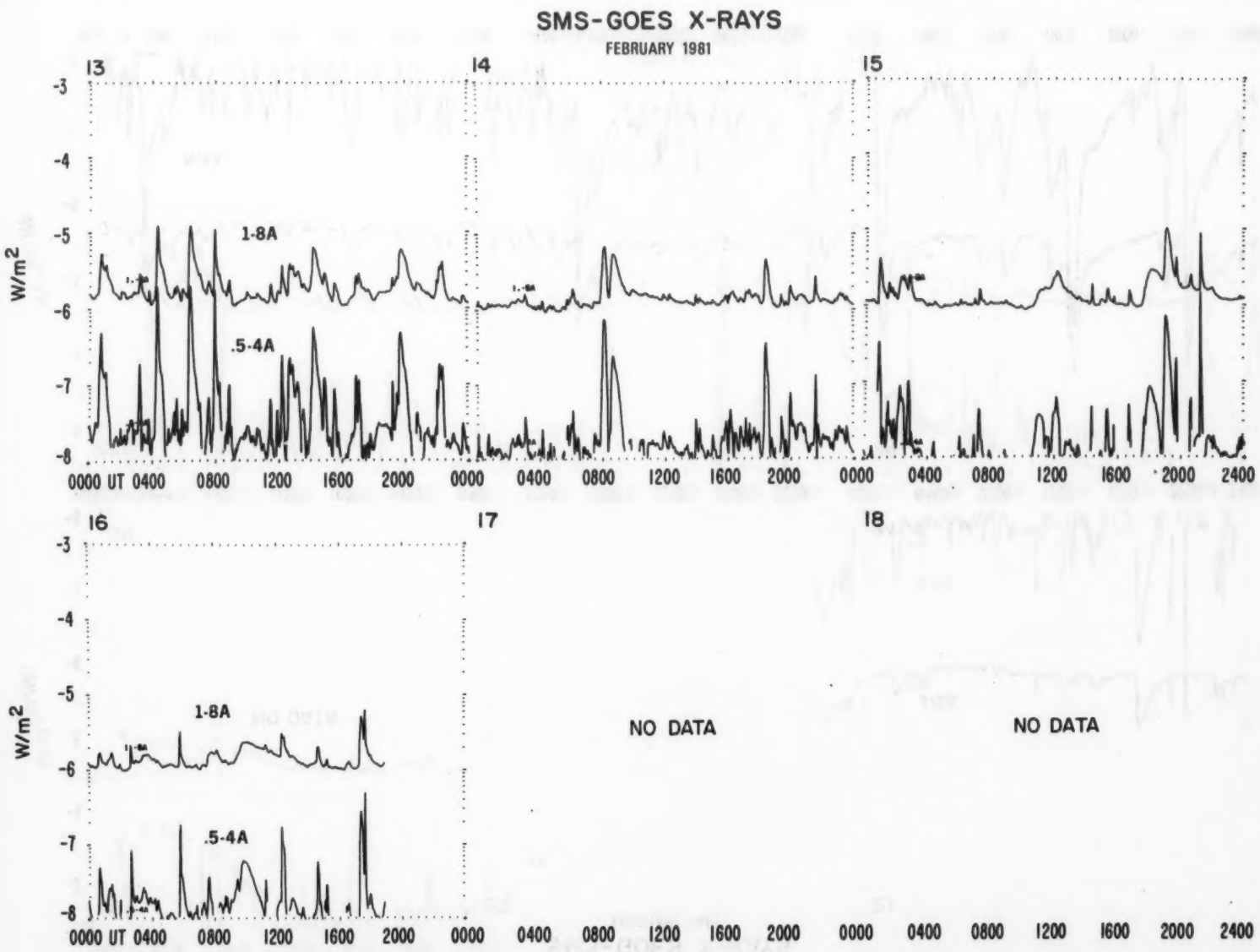
# SMS-GOES X-RAYS

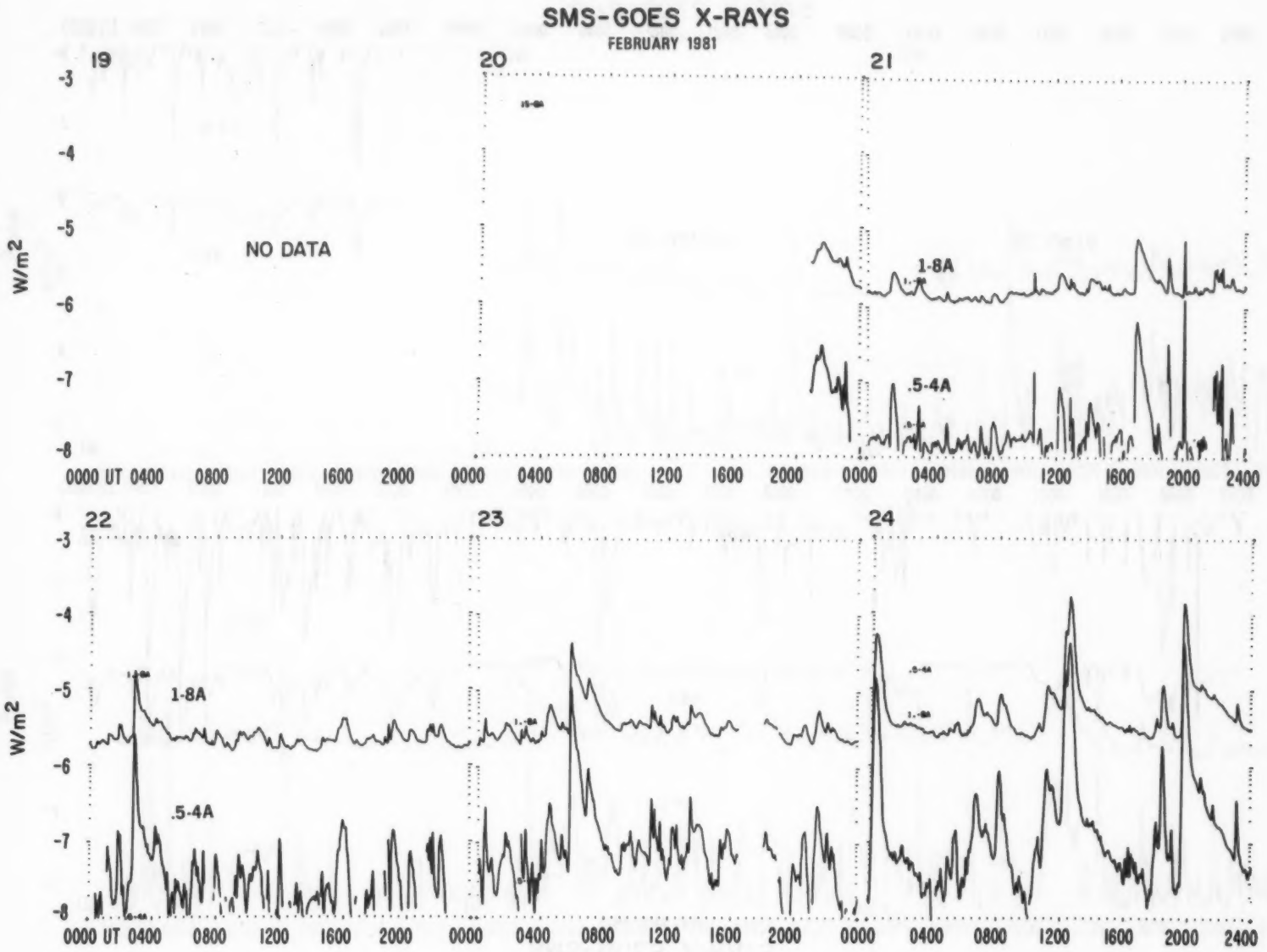
FEBRUARY 1981



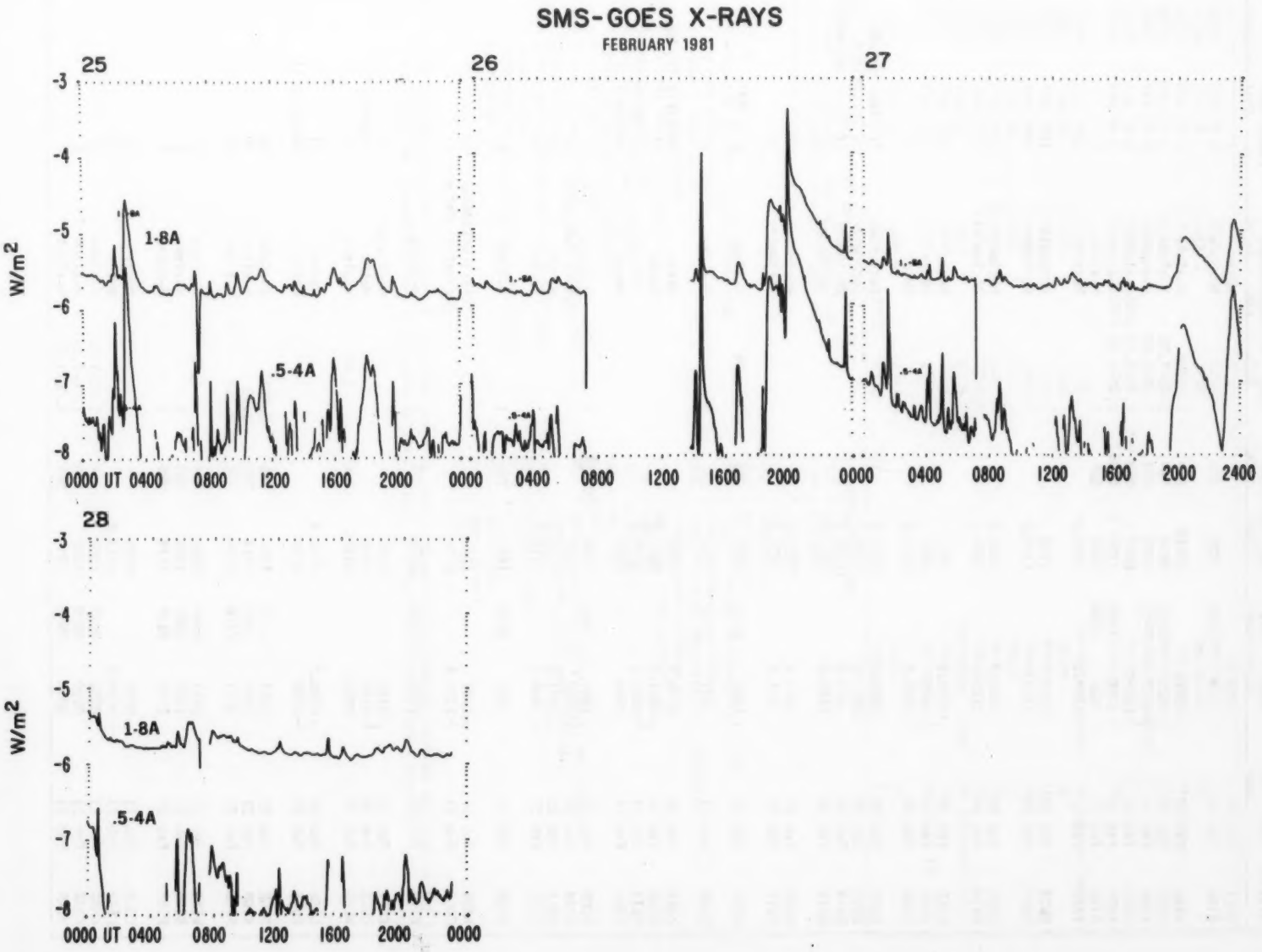



SMS-GOES X-RAYS


SMS-GOES X-RAYS
FEBRUARY 1981
13
14
15
16
17
18
-3
-4
-5
-6
-7
-8
W/m2
1-8A
.5-4A
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400
NO DATA
NO DATA




SMS-GOES X-RAYS


SMS-GOES X-RAYS
FEBRUARY 1981
25
26
27
28
W/m2
-3
-4
-5
-6
-7
-8
1-8A
.5-4A
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400
0000 UT 0400 0800 1200 1600 2000 0000

# MASS EJECTIONS FROM THE SUN

## FEBRUARY 1981

| Station | Date 1981 | Observed UT Start | Max | End | Location RA° | $R/R_o$ | Wavelength | Type Event |
|---|---|---|---|---|---|---|---|---|
| PALE | Feb 01 | 1200.2 | | | | | Meter | II |
| BIGB | Feb 01 | 2126 | 2147 | 2209 | 086 | 1 | H-alpha | A |
| WEND | Feb 02 | 0840E | | 1546D | 089 | 1.00 | H-alpha | A |
| KHAR | Feb 02 | 0920 | 0923 | 0934 | 089 | 1.00-1.03 | H-alpha | S |
| KHAR | Feb 02 | 0937 | 0952 | 1038 | 089 | 1.00-1.03 | H-alpha | S |
| KHAR | Feb 02 | 0937 | | 0958 | 088 | 1.00-1.03 | H-alpha | S |
| KHAR | Feb 02 | 1050 | 1050 | 1110 | 089 | 1.00-1.03 | H-alpha | S |
| BIGB | Feb 02 | 1807 | 1838 | 1849 | 086 | 1 | H-alpha | A |
| PALE | Feb 02 | 1904.3 | | 1944.0 | | | Meter | IV |
| DWIN | Feb 03 | 0810 | | 1100 | | | Decimeter | IV |
| DWIN | Feb 03 | 1113.4 | | 1115.0 | | | Decimeter | IV |
| DWIN | Feb 04 | 1052.0 | | 1055.0 | | | Decimeter | IV |
| DWIN | Feb 04 | 1223.5 | | 1224.5 | | | Decimeter | IV |
| CULG | Feb 05 | 2248.5 | | 2315 | | | Meter | II |
| HARV | Feb 05 | 2248 | | 2303 | | | Meter | II |
| LEAR | Feb 05 | 2250.6 | | 2311.0 | | | Meter | II |
| DWIN | Feb 06 | 0914.3 | | 0915.5 | | | Decimeter | IV Fiber bursts |
| DWIN | Feb 06 | 0923.6 | | 0924.2 | | | Decimeter | IV Pulsations |
| DWIN | Feb 06 | 1328.0 | | 1330.2 | | | Decimeter | IV Zebra patterns |
| DWIN | Feb 06 | 1409.0 | | 1410.0 | | | Decimeter | IV |
| DWIN | Feb 07 | 1018.6 | | 1023.6 | | | Decimeter | IV |
| DWIN | Feb 07 | 1534.3 | | 1535.5 | | | Decimeter | IV |
| WEND | Feb 09 | 1054 | 1113 | 1121 | 255 | 1.05 | H-alpha | A or SP |
| BIGB | Feb 11 | 1641 | 1703 | 1750 | 072 | 1 | H-alpha | A |
| CULG | Feb 14 | 0719.5 | | 0728 | | | Meter | Possible II, Weak |
| LEAR | Feb 14 | 0837.0 | | 0857.3 | | | Meter | II |
| WEIS | Feb 14 | 0837.3 | | 0848.0 | | | 40-130 | II Harmonic |
| CULG | Feb 14 | 2049 | | 2104 | | | Meter | Possible II |
| BIGB | Feb 15 | 1854 | 1904 | 1945 | 281-287 | 1 | H-alpha | A |
| HARV | Feb 15 | 1900 | | 1927 | | | Meter; dekameter | II |
| PALE | Feb 15 | 1901.9 | | 1929.0 | | | Meter | II |
| SGMR | Feb 15 | 1906.4 | | 1910.1 | | | Meter | IV |
| BIGB | Feb 16 | 1621 | 1630 | 1657 | 290 | 1 | H-alpha | A |
| HARV | Feb 17 | 2151 | | 2209 | | | Meter; dekameter | II |
| CULG | Feb 17 | 2152.5 | | 2214 | | | Decimeter; meter | II |
| BIGB | Feb 18 | 2025 | 2043 | 2229 | 075 | 1 | H-alpha | A |
| CULG | Feb 19 | 0336 | | 0420 | | | Decimeter | IV |
| CULG | Feb 19 | 0345 | | 0356 | | | Meter | Possible II |
| WEND | Feb 19 | 0826E | | 0932D | 109 | 1.07 | H-alpha | A |
| LEAR | Feb 20 | 0700.3 | | 0718.5 | | | Meter | II |
| CULG | Feb 20 | 0708 | | 0718 | | | Meter | Possible II |
| BIGB | Feb 21 | 1657 | 1700 | 1854 | 286 | 0.857 | H-alpha | SP |
| BIGB | Feb 21 | 2001 | 2007 | 2014 | 330 | 0.32 | H-alpha | SP |
| BIGB | Feb 21 | 2224 | 2228 | 2234 | 330 | 0.357 | H-alpha | SP |
| WEND | Feb 22 | 0837 | 0850 | 0856 | 104 | 1.00 | H-alpha | A |
| BIGB | Feb 22 | 1857 | 1909 | 1935 | 283 | 1 | H-alpha | A |
| BIGB | Feb 22 | 2115 | 2124 | 2139 | 289 | 1 | H-alpha | A |
| CULG | Feb 23 | 0704 | | 0725 | | | Meter | II |
| LEAR | Feb 23 | 0704.8 | | 0713.8 | | | Meter | II |
| KHAR | Feb 23 | 0950 | 0950 | 1007 | 068 | 1.00-1.01 | H-alpha | S |
| KHAR | Feb 23 | 0950 | 0950 | 1007 | 076 | 1.00-1.01 | H-alpha | S |
| KHAR | Feb 23 | 0950 | 0950 | 1055 | 092 | 1.00-1.01 | H-alpha | S |

# MASS EJECTIONS FROM THE SUN

## FEBRUARY 1981

| Station | Date 1981 | Observed UT Start | Max | End | Location RA° | $R/R_0$ | Wavelength | Type Event |
|---|---|---|---|---|---|---|---|---|
| DWIN | Feb 24 | 1055 | | 1109 | | | Decimeter | IV |
| DWIN | Feb 24 | 1222 | | 1238 | | | Decimeter | IV |
| WEIS | Feb 24 | 1231.2 | | 1245.0 | | | 30-140 | II Harmonic |
| SGMR | Feb 24 | 1238.0 | | 1241.2 | | | Meter | II |
| HARV | Feb 24 | 1938 | | 1942 | | | Decimeter; meter | II |
| BIGB | Feb 24 | 1948 | 2006 | 2058 | 258-290 | 1 | H-alpha | A |
| BIGB | Feb 24 | 2300 | 2303 | 2310 | 105 | 0.785 | H-alpha | SP |
| HARV | Feb 26 | 1836 | | 1916 | | | Decimeter; meter | IV Intermittent |
| HARV | Feb 26 | 1838 | | 1900 | | | Meter | II |
| PALE | Feb 26 | 1839.1 | | 1900.5 | | | Meter | II |
| SGMR | Feb 26 | 1840.7 | | 1859.0 | | | Meter | II |
| HARV | Feb 26 | 1951 | | 2012 | | | Meter | II |
| SGMR | Feb 26 | 1954.4 | | 2007.5 | | | Meter | II |
| PALE | Feb 26 | 1955.1 | | 2007.0 | | | Meter | II |
| HARV | Feb 26 | 2009 | | 2025 | | | Decimeter; meter | IV Intermittent |
| HARV | Feb 26 | 2038 | | 2048 | | | Meter | IV |
| CULG | Feb 26 | 2332 | | 2334 | | | Decimeter | Possible II |
| PALE | Feb 27 | 1900.5 | | 0415.0 | | | Meter | IV |
| BIGB | Feb 27 | 2316 | 2322 | 2342 | 282 | 1 | H-alpha | A |

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after the tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

NOTE: Because only a small fraction of the data taken by satellite-borne coronagraph had been analyzed at the time this table was assembled, many events are defined solely by ground-based observatory reports.

SGD 444 Part II (Comprehensive)

# MISCELLANEOUS DATA

## Contents

| | Page |
|---|---|
| Active Regions Oct 22, 1980 - Feb 9, 1981 | 52-59 |
| Synoptic Solar Maps Oct 22, 1980 - Feb 9, 1981 | |

ACTIVE REGIONS
CARRINGTON ROTATION 1701
(October 22 to November 19, 1980)

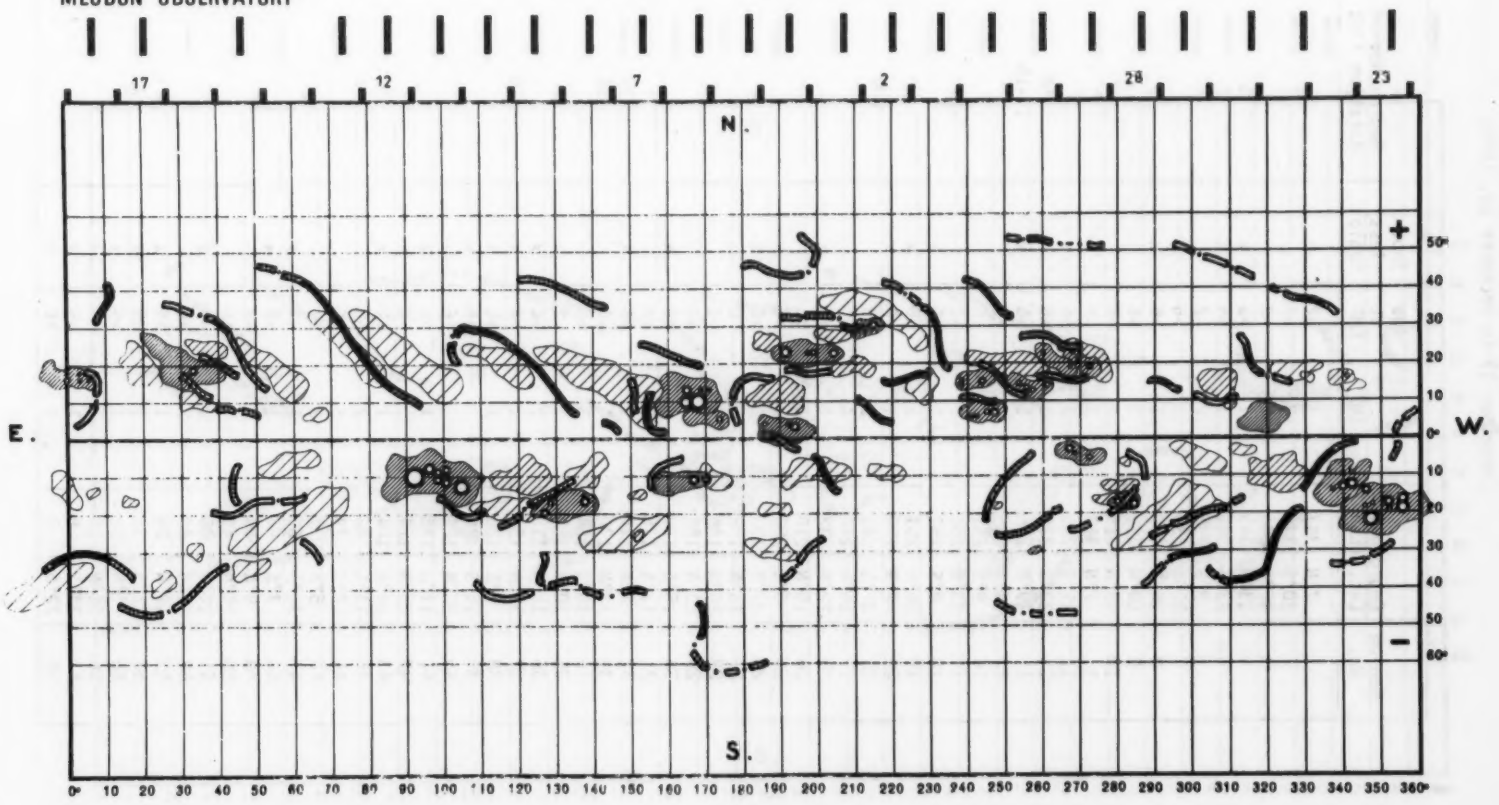
| Region No. | Coordinates Lat. | Coordinates Long. | IMP | Age at CMP | Spot-less Region | Region No. in Rotation 1700 | Activity at West Limb |
|---|---|---|---|---|---|---|---|
| 1 | 19°S | 351 | 7 | >6 | | | decreasing |
| 2 | 13°S | 340 | 4 | >6 | | | decreasing |
| 3 | 16°N | 340 | 2 | +4 | | | decreasing |
| 4 | 16°N | 330 | 1 | +4 | x | | disappeared |
| 5 | 10°S | 323 | 1 | >6 | x | | decreasing |
| 6 | 6°N | 319 | 1 | >6 | x | | decreasing |
| 7 | 3°S | 313 | 1 | +5 | x | | dispersed |
| 8 | 14°N | 307 | 1 | >6 | x | | dispersed |
| 9 | 6°S | 282 | 1 | -3 | x | | disappeared |
| 10 | 17°S | 282 | 3 | -2 | | | increasing |
| 11 | 13°S | 281 | 1 | +5 | x | | decreasing |
| 12 | 16°S | 277 | 1 | +4 | x | | dispersed |
| 13 | 22°N | 273 | 1 | >6 | x | | decreasing |
| 14 | 4°S | 270 | 3 | +4 | | | decreasing |
| 15 | 20°N | 271 | 3 | >6 | | | decreasing |
| 16 | 20°N | 264 | 2 | >6 | | | decreasing |
| 17 | 30°S | 258 | 1 | -2 | x | | disappeared |
| 18 | 14°N | 257 | 3 | >6 | | | decreasing |
| 19 | 20°N | 252 | 1 | >6 | x | | decreasing |
| 20 | 18°S | 247 | 1 | -1 | x | | disappeared |
| 21 | 7°N | 245 | 3 | +6 | | | decreasing |
| 22 | 16°N | 242 | 3 | +4 | | | decreasing |
| 23 | 9°S | 219 | 1 | >6 | x | | dispersed |
| 24 | 30°N | 214 | 2 | >6 | | | decreasing |
| 25 | 20°N | 210 | 1 | +5 | x | | dispersed |
| 26 | 28°N | 205 | 1 | >6 | x | | dispersed |
| 27 | 8°S | 200 | 1 | >6 | x | | decreasing |
| 28 | 23°N | 198 | 4 | >6 | | | decreasing |
| 29 | 3°N | 191 | 4 | >6 | | | decreasing |
| 30 | 12°N | 190 | 1 | >6 | x | | decreasing |
| 31 | 19°S | 189 | 1 | >6 | x | | dispersed |
| 32 | 26°N | 186 | 1 | >6 | x | | dispersed |
| 33 | 6°N | 170 | 2 | >6 | | | decreasing |
| 34 | 12°N | 165 | 6 | >6 | | 41 | decreasing |
| 35 | 11°S | 164 | 3 | +5 | | | decreasing |
| 36 | 14°S | 152 | 1 | +1 | x | | disappeared |
| 37 | 26°S | 152 | 1 | +6 | x | | disappeared |
| 38 | 17°N | 143 | 1 | >6 | x | | decreasing |
| 39 | 9°S | 138 | 1 | >6 | x | 47 | decreasing |
| 40 | 17°S | 133 | 3 | >6 | | | decreasing |
| 41 | 9°S | 121 | 1 | >6 | x | 49-50 | decreasing |
| 42 | 18°S | 117 | 1 | >6 | x | | dispersed |
| 43 | 21°N | 116 | 1 | >6 | x | | decreasing |
| 44 | 9°S | 97 | 8 | >6 | | | decreasing |
| 45 | 7°N | 67 | 1 | >6 | x | 57 | dispersed |
| 46 | 5°S | 59 | 1 | >6 | x | | dispersed |
| 47 | 20°N | 55 | 1 | >6 | x | | dispersed |
| 48 | 25°N | 37 | 1 | >6 | x | | decreasing |
| 49 | 11°N | 34 | 1 | >6 | x | | dispersed |
| 50 | 29°S | 34 | 1 | >6 | x | | decreasing |
| 51 | 20°N | 31 | 3 | >6 | | 67 | decreasing |
| 52 | 28°S | 25 | 1 | >6 | x | | dispersed |
| 53 | 16°S | 16 | 1 | +6 | x | | disappeared |
| 54 | 14°S | 7 | 1 | +1 | x | | disappeared |
| 55 | 17°N | 2 | 3 | >6 | | | dispersed |

# SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1701

OCTOBER 22 - NOVEMBER 19, 1980

MEUDON OBSERVATORY




53
Misc
Oct 80-Feb 81

ACTIVE REGIONS
CARRINGTON ROTATION 1702
(November 19 to December 16, 1980)

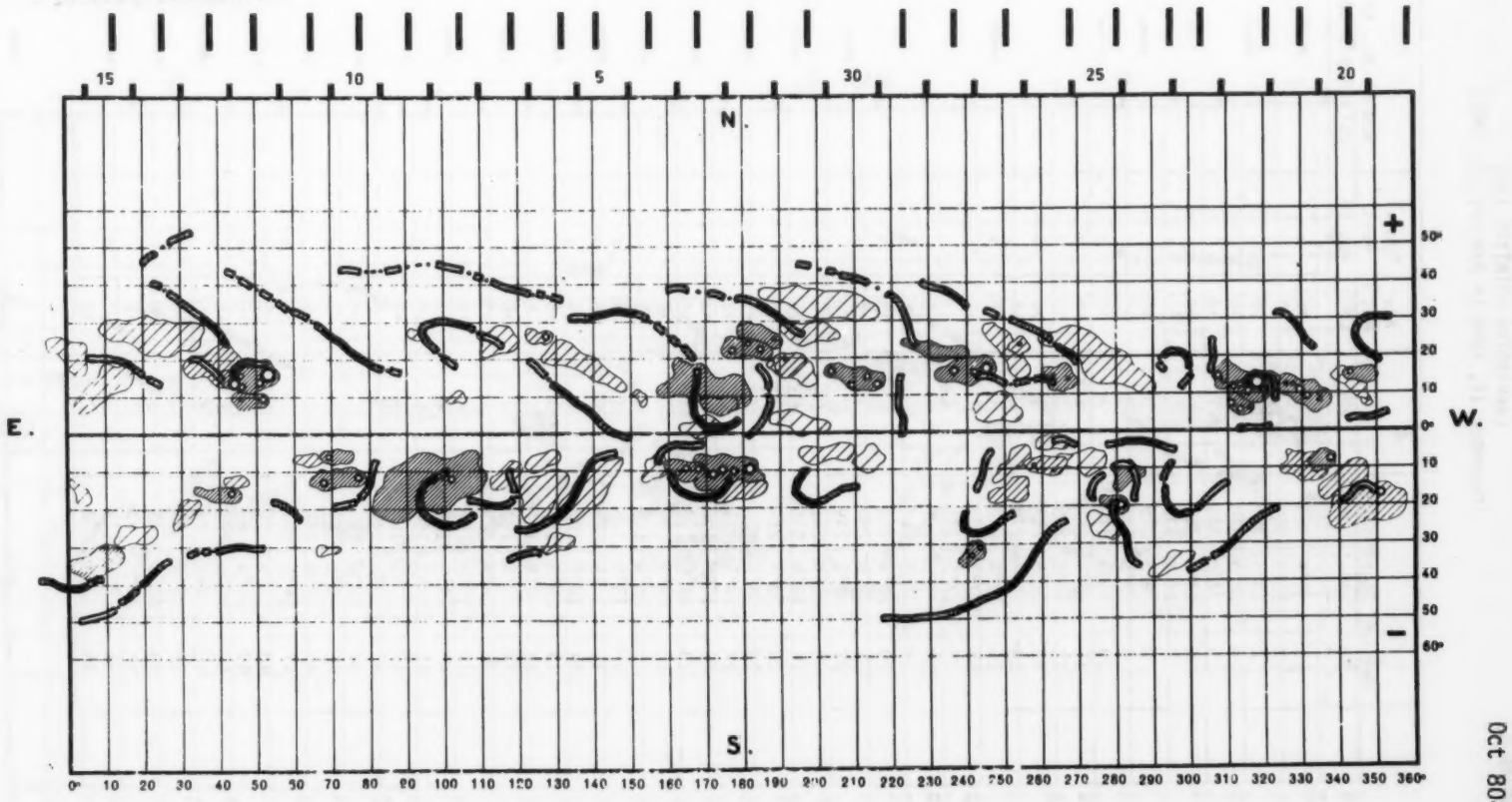
| Region No. | Coordinates Lat. | Coordinates Long. | IMP | Age at CMP | Spot-less Region | Region No. in Rotation 1701 | Activity at West Limb |
|---|---|---|---|---|---|---|---|
| 1 | 7°N | 347 | 1 | -2 | x | | ? |
| 2 | 20°S | 347 | 3 | >6 | | 1 | decreasing |
| 3 | 15°N | 346 | 2 | -2 | | | increasing |
| 4 | 13°N | 343 | 1 | >6 | x | 3 | dispersed |
| 5 | 13°S | 341 | 1 | >6 | x | 2 | dispersed |
| 6 | 8°S | 335 | 2 | -2 | | | stable |
| 7 | 10°N | 330 | 3 | >6 | | | decreasing |
| 8 | 10°S | 330 | 1 | >6 | x | 5 | decreasing |
| 9 | 10°N | 315 | 3 | >6 | | | decreasing |
| 10 | 13°N | 315 | 4 | >6 | | | decreasing |
| 11 | 7°N | 313 | 3 | -4 | | | increasing |
| 12 | 12°S | 283 | 1 | >6 | x | | decreasing |
| 13 | 20°S | 279 | 3 | >6 | | 10 | decreasing |
| 14 | 19°N | 276 | 1 | >6 | x | 13-15 | decreasing |
| 15 | 14°N | 265 | 2 | +5 | | | decreasing |
| 16 | 9°S | 261 | 2 | 0 | | | decreasing |
| 17 | 23°N | 254 | 2 | -2 | | | decreasing |
| 18 | 8°S | 252 | 1 | >6 | x | | disappeared |
| 19 | 16°S | 251 | 1 | >6 | x | | dispersed |
| 20 | 22°N | 250 | 1 | >6 | x | | decreasing |
| 21 | 32°S | 241 | 2 | +3 | | | decreasing |
| 22 | 16°N | 240 | 4 | +1 | | | stable |
| 23 | 22°N | 232 | 1 | >6 | x | | decreasing |
| 24 | 15°N | 210 | 3 | >6 | | | decreasing |
| 25 | 5°S | 202 | 1 | >6 | x | | dispersed |
| 26 | 27°N | 198 | 1 | >6 | x | | decreasing |
| 27 | 18°N | 192 | 2 | 0 | | | decreasing |
| 28 | 26°N | 185 | 2 | >6 | | | decreasing |
| 29 | 23°N | 182 | 3 | >6 | | | decreasing |
| 30 | 15°S | 179 | 1 | >6 | x | | decreasing |
| 31 | 11°S | 175 | 5 | >6 | | | decreasing |
| 32 | 8°N | 174 | 1 | >6 | x | 33 | decreasing |
| 33 | 13°N | 170 | 1 | >6 | x | 34 | decreasing |
| 34 | 10°S | 164 | 3 | >6 | | | stable |
| 35 | 10°N | 153 | 1 | -2 | x | | dispersed |
| 36 | 16°S | 138 | 1 | >6 | x | | decreasing |
| 37 | 19°N | 138 | 1 | >6 | x | 38 | dispersed |
| 38 | 7°S | 126 | 1 | >6 | x | | dispersed |
| 39 | 15°S | 126 | 1 | >6 | x | | decreasing |
| 40 | 26°N | 125 | 2 | >6 | | | decreasing |
| 41 | 11°S | 116 | 1 | >6 | x | | dispersed |
| 42 | 25°N | 114 | 1 | >6 | x | | dispersed |
| 43 | 10°N | 104 | 1 | +2 | x | | disappeared |
| 44 | 13°S | 96 | 2 | >6 | | 44 | decreasing |
| 45 | 12°S | 72 | 3 | >6 | | | decreasing |
| 46 | 6°S | 71 | 2 | +2 | | | decreasing |
| 47 | 31°S | 69 | 1 | +4 | x | | dispersed |
| 48 | 7°S | 64 | 1 | >6 | x | | dispersed |
| 49 | 9°N | 49 | 2 | +2 | | | decreasing |
| 50 | 15°N | 49 | 5 | >6 | | | decreasing |
| 51 | 12°S | 45 | 1 | -2 | x | | dispersed |
| 52 | 16°S | 40 | 2 | >6 | | | decreasing |
| 53 | 19°N | 39 | 1 | >6 | x | | decreasing |
| 54 | 11°S | 31 | 1 | >6 | x | | dispersed |
| 55 | 27°N | 22 | 1 | >6 | x | | dispersed |
| 56 | 13°N | 10 | 1 | >6 | x | | dispersed |
| 57 | 34°S | 8 | 1 | >6 | x | | decreasing |
| 58 | 22°N | 1 | 1 | >6 | x | | dispersed |

# SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1702

NOVEMBER 19 - DECEMBER 16, 1980

MEUDON OBSERVATORY




55
Misc
Oct 80-Feb 81

ACTIVE REGIONS
CARRINGTON ROTATION 1703
(December 16, 1980 to January 12, 1981)

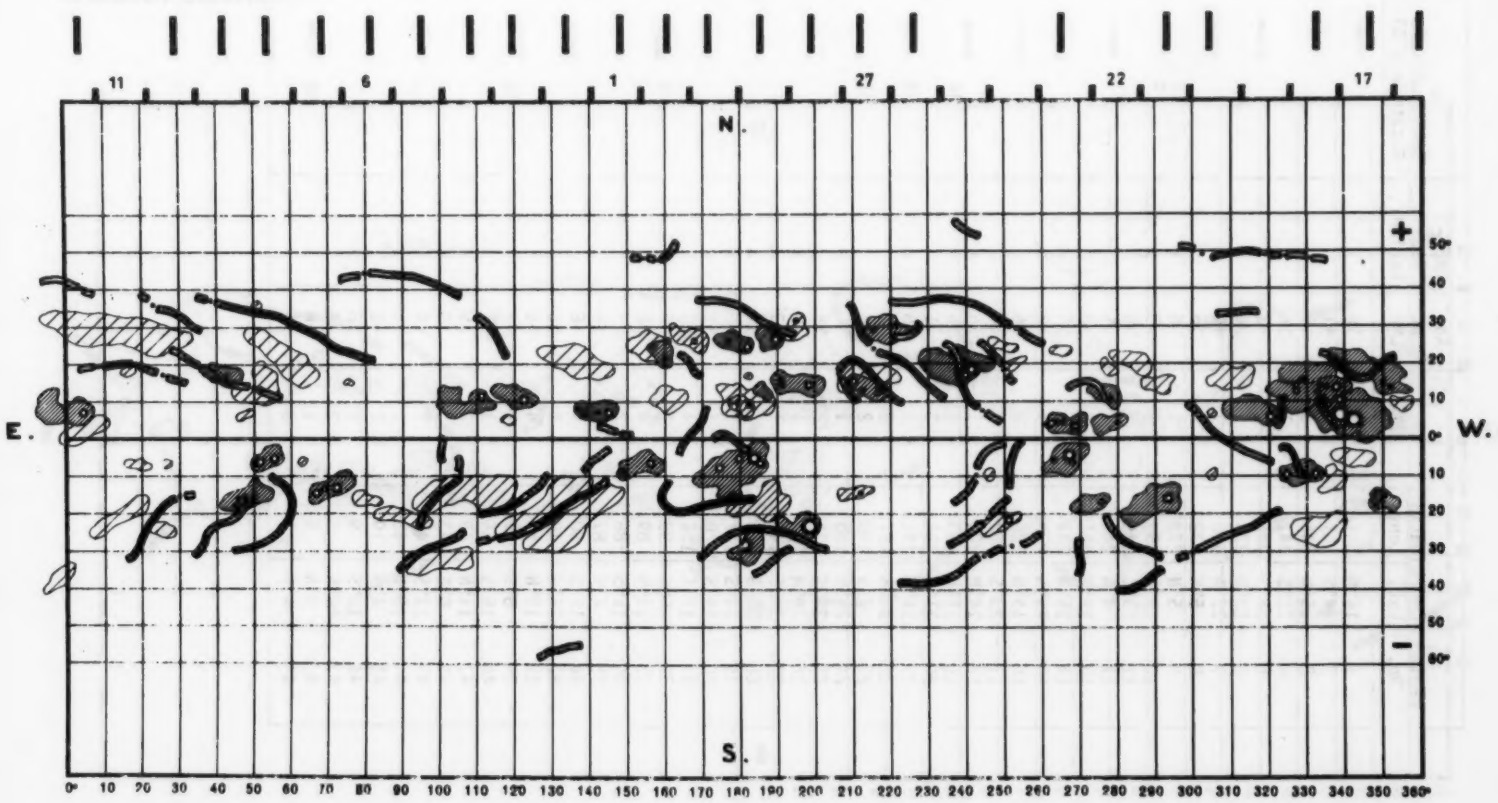
| Region No. | Coordinates Lat. | Coordinates Long. | IMP | Age at CMP | Spot-less Region | Region No. in Rotation 1702 | Activity at West Limb |
|---|---|---|---|---|---|---|---|
| 1 | 9°N | 355 | 1 | >6 | x | | decreasing |
| 2 | 16°S | 351 | 2 | +1 | | | decreasing |
| 3 | 18°S | 348 | 2 | >6 | | | decreasing |
| 4 | 18°N | 348 | 2 | >6 | | | decreasing |
| 5 | 7°N | 343 | 7 | >6 | | | decreasing |
| 6 | 12°N | 333 | 3 | >6 | | | decreasing |
| 7 | 17°N | 331 | 2 | >6 | | | decreasing |
| 8 | 9°S | 329 | 3 | >6 | | | decreasing |
| 9 | 8°N | 316 | 3 | >6 | | 11 | decreasing |
| 10 | 16°N | 311 | 1 | >6 | x | | dispersed |
| 11 | 14°N | 291 | 1 | >6 | x | | decreasing |
| 12 | 17°S | 289 | 3 | >6 | | | decreasing |
| 13 | 21°N | 284 | 1 | >6 | x | | disappeared |
| 14 | 4°N | 278 | 2 | >6 | | | decreasing |
| 15 | 19°N | 278 | 1 | >6 | x | | decreasing |
| 16 | 12°N | 277 | 2 | >6 | | | decreasing |
| 17 | 17°S | 273 | 2 | +2 | | | decreasing |
| 18 | 3°N | 267 | 4 | +3 | | | stable |
| 19 | 5°S | 267 | 3 | >6 | | | decreasing |
| 20 | 20°N | 253 | 1 | >6 | x | 20 | dispersed |
| 21 | 25°N | 250 | 1 | >6 | x | 20 | dispersed |
| 22 | 22°S | 249 | 2 | 0 | | | decreasing |
| 23 | 21°N | 241 | 1 | >6 | x | 20 | decreasing |
| 24 | 19°N | 235 | 4 | >6 | | | decreasing |
| 25 | 29°N | 219 | 2 | +6 | | | decreasing |
| 26 | 14°N | 214 | 3 | -4 | | | ? |
| 27 | 14°S | 211 | 2 | +2 | | | dispersed |
| 28 | 15°N | 196 | 3 | +2 | | | stable |
| 29 | 24°S | 196 | 4 | >6 | | | decreasing |
| 30 | 29°N | 195 | 2 | >6 | | | dispersed |
| 31 | 26°N | 188 | 3 | >6 | | | dispersed |
| 32 | 13°N | 186 | 1 | -5 | x | | ? |
| 33 | 17°S | 186 | 1 | >6 | x | | decreasing |
| 34 | 10°N | 183 | 1 | >6 | x | 33 | disappeared |
| 35 | 29°S | 183 | 3 | >6 | | | decreasing |
| 36 | 9°N | 181 | 2 | -5 | | | ? |
| 37 | 8°S | 181 | 6 | >6 | | | decreasing |
| 38 | 25°N | 179 | 3 | +3 | | | decreasing |
| 39 | 27°N | 167 | 2 | >6 | | | dispersed |
| 40 | 23°N | 159 | 2 | 0 | | | increasing |
| 41 | 25°N | 155 | 1 | >6 | x | | dispersed |
| 42 | 7°S | 153 | 3 | +5 | | | decreasing |
| 43 | 8°N | 142 | 3 | 0 | | | stable |
| 44 | 11°N | 120 | 3 | >6 | | | decreasing |
| 45 | 5°N | 119 | 1 | -1 | x | | disappeared |
| 46 | 10°N | 107 | 2 | >6 | | | decreasing |
| 47 | 14°S | 107 | 1 | >6 | x | | decreasing |
| 48 | 21°S | 90 | 1 | >6 | x | | decreasing |
| 49 | 16°S | 80 | 1 | >6 | x | | dispersed |
| 50 | 13°S | 71 | 4 | +4 | | | decreasing |
| 51 | 5°S | 54 | 4 | +1 | | | decreasing |
| 52 | 15°N | 51 | 1 | >6 | x | 50 | decreasing |
| 53 | 16°S | 48 | 3 | >6 | | | decreasing |
| 54 | 17°N | 43 | 2 | +1 | | | decreasing |
| 55 | 7°S | 19 | 1 | -2 | x | | disappeared |
| 56 | 7°N | 0 | 2 | >6 | | | decreasing |

# SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1703

DECEMBER 16, 1980 - JANUARY 12, 1981

MEUDON OBSERVATORY




57
Misc
Oct 80-Feb 18

ACTIVE REGIONS
CARRINGTON ROTATION 1704
(January 12 to February 9, 1981)

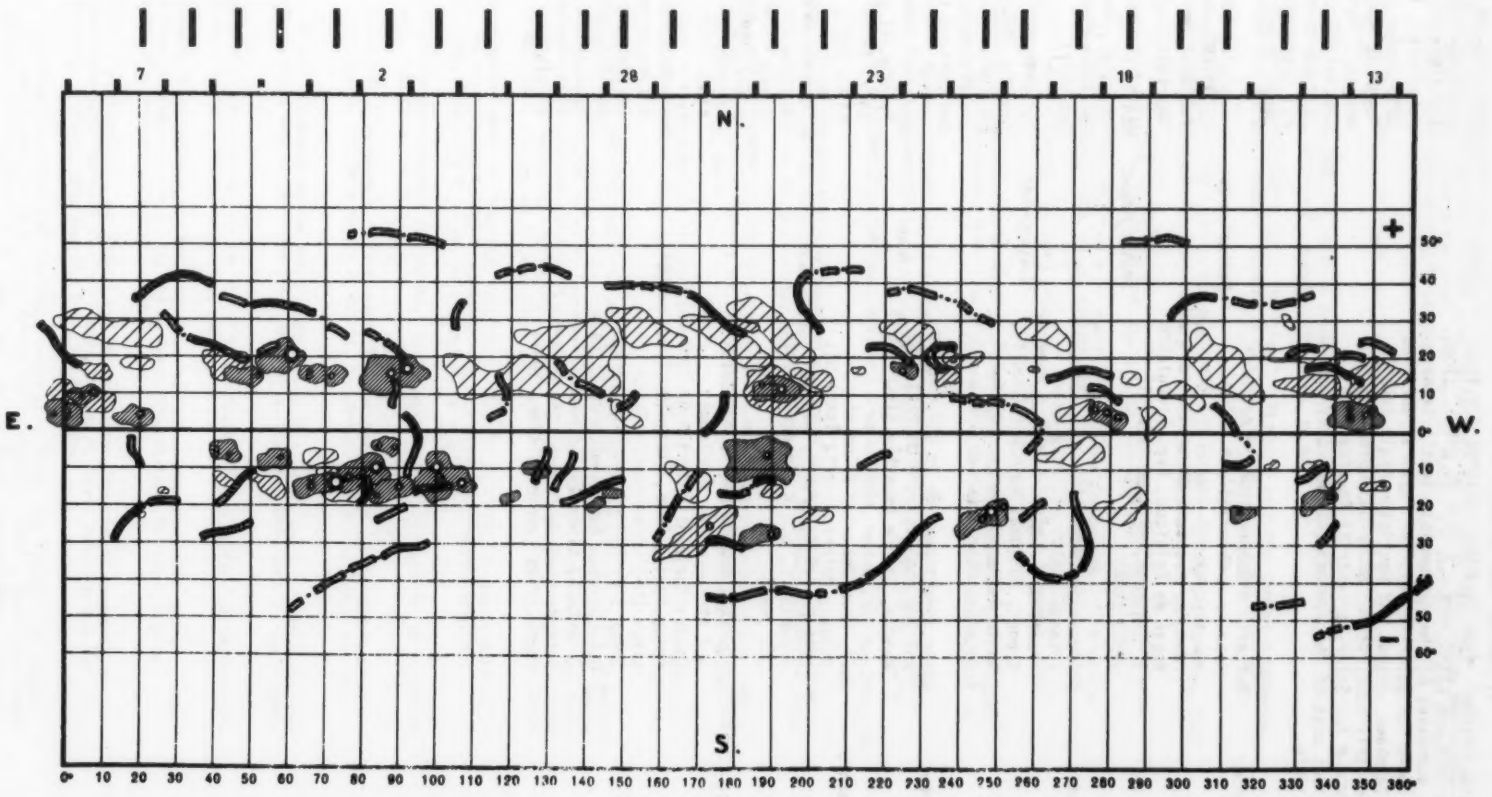
| Region No. | Coordinates Lat. | Long. | IMP | Age at CMP | Spot-less Region | Region No. in Rotation 1703 | Activity at West Limb |
|---|---|---|---|---|---|---|---|
| 1 | 14°N | 351 | 1 | >6 | x | 4 | dispersed |
| 2 | 14°S | 351 | 2 | +1 | | | disappeared |
| 3 | 5°N | 346 | 3 | >6 | | 5 | decreasing |
| 4 | 12°S | 341 | 1 | >6 | x | | dispersed |
| 5 | 18°S | 336 | 2 | +2 | | | decreasing |
| 6 | 13°N | 334 | 1 | >6 | x | 6 | decreasing |
| 7 | 22°N | 316 | 2 | +6 | | | decreasing |
| 8 | 5°N | 279 | 4 | >6 | | | decreasing |
| 9 | 5°N | 272 | 1 | >6 | x | 18 | dispersed |
| 10 | 17°N | 259 | I | -5 | x | | ? |
| 11 | 23°S | 246 | 4 | >6 | | | decreasing |
| 12 | 9°N | 244 | 1 | -5 | x | | ? |
| 13 | 19°N | 241 | 2 | >6 | | | decreasing |
| 14 | 15°N | 237 | 1 | >6 | x | | decreasing |
| 15 | 25°N | 228 | 1 | >6 | x | | decreasing |
| 16 | 16°N | 226 | 2 | >6 | | | decreasing |
| 17 | 23°S | 202 | 1 | >6 | x | | decreasing |
| 18 | 14°N | 201 | 1 | >6 | x | | decreasing |
| 19 | 11°N | 193 | 1 | >6 | x | 36 | decreasing |
| 20 | 11°N | 191 | 3 | -1 | | | decreasing |
| 21 | 16°S | 191 | 1 | >6 | x | 33 | dispersed |
| 22 | 28°S | 187 | 2 | 0 | | | decreasing |
| 23 | 7°S | 186 | 2 | >6 | | 37 | decreasing |
| 24 | 28°N | 183 | 1 | 0 | x | | dispersed |
| 25 | 28°S | 171 | 2 | >6 | | | dispersed |
| 26 | 28°N | 156 | 1 | >6 | x | | dispersed |
| 27 | 17°S | 148 | 1 | +3 | x | | disappeared |
| 28 | 20°S | 143 | 1 | +3 | x | | disappeared |
| 29 | 10°S | 127 | 1 | +6 | x | | dispersed |
| 30 | 19°S | 120 | 1 | +2 | x | | dispersed |
| 31 | 12°S | 104 | 4 | >6 | | | decreasing |
| 32 | 15°S | 99 | 2 | >6 | | | decreasing |
| 33 | 15°N | 89 | 4 | >6 | | | decreasing |
| 34 | 16°S | 88 | 2 | >6 | | | decreasing |
| 35 | 4°S | 87 | 2 | >6 | | | dispersed |
| 36 | 12°S | 80 | 4 | >6 | | | decreasing |
| 37 | 15°S | 70 | 2 | >6 | | | decreasing |
| 38 | 19°N | 58 | 4 | >6 | | | stable |
| 39 | 8°S | 57 | 2 | >6 | | 51 | decreasing |
| 40 | 15°S | 55 | 1 | >6 | x | | decreasing |
| 41 | 14°N | 49 | 2 | >6 | | | decreasing |
| 42 | 6°S | 43 | 2 | 0 | | | stable |
| 43 | 13°S | 43 | 1 | +4 | x | | dispersed |
| 44 | 18°N | 43 | 1 | >6 | x | | dispersed |
| 45 | 4°N | 19 | 2 | +2 | | | dispersed |
| 46 | 15°S | 9 | 1 | >6 | x | | disappeared |
| 47 | 9°N | 6 | 2 | -3 | | | decreasing |
| 48 | 8°N | 5 | 1 | >6 | x | 56 | dispersed |
| 49 | 4°N | 0 | 2 | >6 | | | decreasing |

# SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1704

JANUARY 12 - FEBRUARY 9, 1981

MEUDON OBSERVATORY




59
Misc
Oct 80-Feb 81

## SOME OTHER SOURCES OF DATA

Data Available: Some data available in publication form are cited here. A list is given, along with addresses of the responsible institutions. The WDC-A for Solar-Terrestrial Physics publishes the Toyokawa, Ottawa and Penticton radio data in its monthly publication, *Solar-Geophysical Data*. The WDC-A for Solar-Terrestrial Physics also receives most of the periodicals when they become available.

Belgium: *Bulletin d'Observations: Activite Solaire - Observations Radioelectriques Solaires - 600 MHz (Humain, Belgium)* Observatoire Royal de Belgique, Ave. Circulaire 3, Brussels, Belgium (monthly since 1962)

Canada: *Solar Noise Observations at 2800 Mc/s (Ottawa - ARO) and 2700 Mc/s (Penticton - DRAO)* Series C Monthly Report, National Research Council, Radio Astronomy Section Ottawa 7, Ontario, Canada (since 1947)

France: *Carte Synoptiques de la Chromosphere Solaire* Observatoire de Paris, 92 Meudon, France (monthly since 1931)

Germany: *Daily Mean Value of Solar Flux Density* Heinrich-Hertz Institut, 1199 Berlin-Adlershof, Rudower Chaussee 5, G.D.R. (monthly since Jul 1957)

Italy: *Solar Phenomena - Monthly Bulletin and Photographic Supplement* Osservatorio Astronomica di Roma, Monte Mario, Rome, Italy (monthly since 1958); *Osservazion Solari, Solar Flux and Distinctive Events* Osservatorio Astronomico Di Trieste (quarterly since 1965); *Solar Observations made at Catania Astrophysical Observatory* (annually since 1967)

Japan: *Monthly Report of Solar Radio Emission* Radio Astronomy Section, Research Institute of Atmospherics, Nagoya University, Toyokawa, Japan (since 1956); *Solar Activity Chart* WDC-C2, Toyokawa Observatory, Nagoya University, Toyokawa, Japan (annually since 1968); *IAU Quarterly Bulletin on Solar Activity* Tokyo Astronomical Observatory, Mitaka, Tokyo, Japan (since 1978)

Netherlands: *Geomagnetic Data* IAGA Bulletin No. 12 (1932-69), No. 32 (since 1970) IUGG Publications Office, 39 ter, Rue Gay-Lussac, Paris V, France (annually)

Philippines: Manila Observatory "Solar Maps and Activity", Manila Observatory, P.O. Box 1231, Manila, Philippines (monthly)

Switzerland: Bulletin of "Berne Solar Observations", Institute of Applied Physics, Div. of Solar Observations, Sidlerstrasse 5, 3012 Berne, Switzerland (since 1968)

Taiwan: *Report on Sunspot Observations* Taiwan Provincial Weather Bureau Observatory, Taipei, Taiwan (quarterly since 1957)

USSR: СОЛНЕЧНЫЕ ДАННЫЕ *(Solar Data)* USSR Academy of Science (monthly since 1958); КОСМИЧЕСКИЕ ДАННЫЕ *(Cosmic Data)* (monthly since 1962); *Magnetic Fields of Sunspots* (bimonthly since 1964)

USA: *Preliminary Report and Forecast of Solar-Geophysical Activity* Space Environment Services Center, NOAA, Boulder, Colorado 80303 USA (weekly); *Solar-Geophysical Data* NOAA, Boulder, Colorado 80303 USA (monthly since November 1955)

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Between 4 and 12 UAG Reports are published at irregular intervals each year. Subscriptions may be ordered through the National Geophysical and Solar-Terrestrial Data Center, Environmental Data and Information Service, NOAA, Boulder, CO 80303, USA. The subscription price for the calendar year only is $30.00 ($17.30 additional for foreign mailing). Each year the single copy prices total less than $30.00, the expiration date for all subscriptions will be extended. Back issues may be purchased at the prices shown below plus a $3.00 handling charge per order; some reports, though, are available only on microfiche. Orders must include check or money order payable in U.S. currency to the Department of Commerce, NOAA/NGSDC.

UAG-1 "IQSY Night Airglow Data," by L.L. Smith, F.E. Roach, and J.M. McKennan, ESSA Aeronomy Laboratory, Boulder, CO, July 1968, 305 pp, $1.75.

UAG-2 "A Reevaluation of Solar Flares, 1964-1966," by Helen W. Dodson and E. Ruth Hedeman, McMath-Hulbert Observatory, University of Michigan, Pontiac, MI, August 1968, 28 pp, $0.30.

UAG-3 "Observations of Jupiter's Sporadic Radio Emission in the Range 7.6-41 MHz, 6 July 1966 through 8 September 1968," by James W. Warwick and George A. Dulk, University of Colorado, Boulder, CO, October 1968, 35 pp, $0.55.

UAG-4 "Abbreviated Calendar Record 1966-1967," by J. Virginia Lincoln, Hope I. Leighton and Dorothy K. Kropp, ESSA now NOAA, Aeronomy and Space Data Center, Boulder, CO, January 1969, 170 pp, $1.25.

UAG-5 "Data on Solar Event of May 23, 1967 and its Geophysical Effects," compiled by J. Virginia Lincoln, World Data Center A, Upper Atmosphere Geophysics, ESSA now NOAA, Boulder, CO, February 1969, 120 pp, $0.65.

UAG-6 "International Geophysical Calendars 1957-1969," by A.H. Shapley and J. Virginia Lincoln, ESSA Research Laboratories, now NOAA, Boulder, CO, March 1969, 25 pp, $0.30.

UAG-7 "Observations of the Solar Electron Corona: February 1964 - January 1968," by Richard T. Hansen, High Altitude Observatory, NCAR, Boulder, CO, and Kamuela, HI, October 1969, 12 pp, $0.15.

UAG-8 "Data on Solar-Geophysical Activity October 24 - November 6, 1968," Parts 1 and 2, compiled by J. Virginia Lincoln, World Data Center A, Upper Atmosphere Geophysics, ESSA now NOAA, Boulder, CO, March 1970, 312 pp, $1.75 (includes Parts 1 and 2).

UAG-9 "Data on Cosmic Ray Event of November 18, 1968 and Associated Phenomena," compiled by J. Virginia Lincoln, World Data Center A, Upper Atmosphere Geophysics, ESSA now NOAA, Boulder, CO, April 1970, 109 pp, $0.55.

UAG-10 "Atlas of Ionograms," edited by A.H. Shapley, ESSA Research Laboratories now NOAA, Boulder, CO, May 1970, 243 pp, $1.50.

UAG-12 "Solar-Geophysical Activity Associated with the Major Geomagnetic Storm of March 8, 1970," Parts 1, 2 and 3, compiled by J. Virginia Lincoln and Dale B. Bucknam, World Data Center A, Upper Atmosphere Geophysics, ESSA now NOAA, Boulder, CO, April 1971, 466 pp, $3.00 (includes Parts 1-3).

UAG-13 "Data on the Solar Proton Event of November 2, 1969 through the Geomagnetic Storm of November 8-10, 1969," compiled by Dale B. Bucknam and J. Virginia Lincoln, World Data Center A, Upper Atmosphere Geophysics, ESSA now NOAA, Boulder, CO, May 1971, 76 pp, $0.90.

UAG-14 "An Experimental, Comprehensive Flare Index and Its Derivation for 'Major" Flares, 1955-1969," by Helen W. Dodson and E. Ruth Hedeman, McMath-Hulbert Observatory, University of Michigan, Pontiac, MI, July 1971, 25 pp, $0.30.

UAG-16 "Temporal Development of the Geophysical Distribution of Auroral Absorption for 30 Substorm Events in each of IQSY (1964-65) and IASY (1960)," by F.T. Berkey, University of Alaska, Fairbanks, AK; V.M. Driatskiy, Arctic and Antarctic Research Institute, Leningrad, USSR; K. Henriksen, Auroral Observatory, Tromson, Norway; D.H. Jelly, Communications Research Center, Ottawa, Canada; T.I. Shchuka, Arctic and Antarctic Research Institute, Leningrad, USSR; A. Theander, Kiruna Geophysical Observatory, Kiruna, Sweden; and J. Ylinieni, University of Oulu, Oulu, Finland, September 1971, 131 pp, $0.70 (microfiche only).

UAG-17 "Ionospheric Drift Velocity Measurements at Jicamarca, Peru (July 1967 - March 1970)," by Ben B. Balsley, NOAA Aeronomy Laboratory, Boulder, CO, and Ronald F. Woodman, Jicamarca Radar Observatory, Instituto Geofisico del Peru, Lima, Peru, October 1971, 45 pp, $0.55 (microfiche only).

UAG-18 "A Study of Polar Cap and Auroral Zone Magnetic Variations," by K. Kawasaki and S.-I. Asasofu, University of Alaska, Fairbanks, AK, June 1972, 21 pp, $0.20.

UAG-19 "Reevaluation of Solar Flares 1967," by Helen W. Dodson and E. Ruth Hedeman, McMath-Hulbert Observatory, University of Michigan, Pontiac, MI, and Marta Rovira de Miceli, San Miguel Observatory, Argentina, June 1972, 15 pp, $0.15.

UAG-21 "Preliminary Compilation of Data for Retrospective World Interval July 26 - August 14, 1972," by J. Virginia Lincoln and Hope I. Leighton, World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, CO, November 1972, 128 pp, $0.70.

UAG-22 "Auroral Electrojet Magnetic Activity Indices (AE) for 1970," by Joe Haskell Allen, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, November 1972, 146 pp, $0.75.

UAG-23 "U.R.S.I. Handbook of Ionogram Interpretation and Reduction," Second Edition, November 1972, edited by W.R. Piggott, Radio and Space Research Station, Slough, UK, and K. Rawer, Arbeitsgruppe fur Physikalische Weltraumforschung, Freiburg, GFR, November 1972, 324 pp, $1.75.

UAG-23A "U.R.S.I. Handbook of Ionogram Interpretation and Reduction," Second Edition, Revision of Chapters 1-4, edited by W.R. Piggott, Radio and Space Research Station, Slough, UK, and K. Rawer, Arbeitsgruppe fur Physikalische Weltraumforschung, Freiburg, GFR, November 1972, 135 pp, $2.14.

UAG-24 "Data on Solar-Geophysical Activity Associated with the Major Ground Level Cosmic Ray Events of 24 January and 1 September 1971," Parts 1 and 2, compiled by Helen E. Coffey and J. Virginia Lincoln, World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, CO, December 1972, 462 pp, $2.00 (includes Parts 1 and 2).

UAG-25 "Observations of Jupiter's Sporadic Radio Emission in the Range 7.6-41 MHz, 9 September 1968 through 9 December 1971," by James W. Warwick, George A. Dulk and David G. Swann, University of Colorado, Boulder, CO, February 1973, 35 pp, $0.35.

UAG-26 "Data Compilation for the Magnetospherically Quiet Periods February 19-23 and November 29 - December 3, 1970," compiled by Helen E. Coffey and J. Virginia Lincoln, World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, CO, May 1973, 129 pp, $0.70.

UAG-27 "High Speed Streams in the Solar Wind," by D.S. Intriligator, University of Southern California, Los Angeles, CA, June 1973, 16 pp, $0.15.

UAG-28 "Collected Data Reports on August 1972 Solar-Terrestrial Events," Parts 1, 2 and 3, edited by Helen E. Coffey, World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, CO, July 1973, 932 pp, $4.50.

UAG-29 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1968," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, October 1973, 148 pp, $0.75.

UAG-30 "Catalogue of Data on Solar-Terrestrial Physics," prepared by NOAA Environmental Data Service, Boulder, CO, October 1973, $1.50. Supersedes UAG-11, 15, and 20 catalogs.

UAG-31 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1969," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, February 1974, 142 pp, $0.75.

UAG-32 "Synoptic Radio Maps of the Sun at 3.3 mm for the Years 1967-1969," by Earle B. Mayfield, Kennon P. White III, and Fred I. Shimabukuro, Aerospace Corp., El Segundo, CA; April 1974, 26 pp, $0.35.

UAG-33 "Auroral Electrojet Magnetic Activity Indices AE(10) for 1967," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, May 1974, 142 pp, $0.75.

UAG-34 "Absorption Data for the IGY/IGC and IQSY," compiled and edited by A.H. Shapley, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO; W.R. Piggott, Appleton Laboratory, Slough, UK; and K. Rawer, Arbeitsgruppe fur Physikalische Weltraumforschung, Freiburg, GFR, June 1974, 381 pp, $2.00.

UAG-35 "Catalogue of Digital Geomagnetic Variation Data at World Data Center A for Solar-Terrestrial Physics," prepared by NOAA Environmental Data Service, Boulder, CO, July 1974, 20 pp, $0.20.

UAG-36 "An Atlas of Extreme Ultraviolet Flashes of Solar Flares Observed via Sudden Frequency Deviations During the ATM-SKYLAB Missions," by R.F. Donnelly and E.L. Berger, NOAA Space Environment Laboratory; Lt. J.D. Busman, NOAA Commissioned Corps; B. Henson, NASA Marshall Space Flight Center; T.B. Jones, University of Leicester, UK; G.M. Lerfald, NOAA Wave Propagation Laboratory; K. Najita, University of Hawaii; W.M. Retallack, NOAA Space Environment Laboratory and W.J. Wagner, Sacramento Peak Observatory, October 1974, 95 pp, $0.55.

UAG-37 "Auroral Electrojet Magnetic Activity Indices AE(10) for 1966," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, December 1974, 142 pp, $0.75.

UAG-38 "Master Station List for Solar-Terrestrial Physics Data at WDC-A for Solar-Terrestrial Physics," by R.W. Buhmann, World Data Center A for Solar-Terrestrial Physics, Boulder, CO; Juan D. Roederer, University of Denver, Denver, CO; and M.A. Shea and D.F. Smart, Air Force Cambridge Research Laboratories, Hanscom AFB, MA, December 1974, 110 pp, $1.60.

UAG-39 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1971," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, February 1975, 144 pp, $2.05.

UAG-40 "H-Alpha Synoptic Charts of Solar Activity for the Period of Skylab Observations, May 1973 - March 1974," by Patrick S. McIntosh, NOAA Space Environment Laboratory, Boulder, CO, February 1975, 32 pp, $0.56.

UAG-41 "H-Alpha Synoptic Charts of Solar Activity During the First Year of Solar Cycle 20 October 1964 - August 1965," by Patrick S. McIntosh, NOAA Space Environment Laboratory, Boulder, CO and Jerome T. Nolte, American Science and Engineering, Inc., Cambridge, MA, March 1975, 25 pp, $0.48.

UAG-42 "Observations of Jupiter's Sporadic Radio Emission in the Range 7.6-80 MHz, 10 December 1971 through 21 March 1975," by James W. Warwick, George A. Dulk and Anthony C. Riddle, University of Colorado, Boulder, CO, April 1975, 49 pp, $1.15.

UAG-43 "Catalog of Observation Times of Ground-Based Skylab-Coordinated Solar Observing Programs," compiled by Helen E. Coffey, World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, CO, May 1975, 159 pp, $3.00.

UAG-44 "Synoptic Maps of Solar 9.1 cm Microwave Emission from June 1962 to August 1973," by Werner Graf and Ronald N. Bracewell, Stanford University, Stanford, CA, May 1975, 183 pp, $2.55.

UAG-45 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1972," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, May 1975, 144 pp, $2.10 (microfiche only).

UAG-46 "Interplanetary Magnetic Field Data 1963-1964," by Joseph H. King, National Space Science Data Center, NASA Goddard Space Flight Center, Greenbelt, MD, June 1975, 382 pp, $1.95.

UAG-47 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1973," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, June 1975, 144 pp, $2.10 (microfiche only).

UAG-48A "Synoptic Observations of the Solar Corona during Carrington Rotations 1580-1596 (11 October 1971 - 15 January 1973)," [Reissue of UAG-48 with quality images], by R.A. Howard, M.J. Koomen, D.J. Michels, R. Tousey, C.R. Detwiler, D.E. Roberts, R.T. Seal, and J.D. Whitney, U.S. Naval Research Laboratory, Washington, DC, and R.T. Hansen and S.F. Hansen, C.J. Garcia and E. Yasukawa, High Altitude Observatory, NCAR, Boulder, CO, February 1976, 200 pp, $4.27.

UAG-49 "Catalog of Standard Geomagnetic Variation Data," prepared by NOAA Environmental Data Service, Boulder, CO, August 1975, 125 pp, $1.85.

UAG-50 "High-Latitude Supplement to the URSI Handbook on Ionogram Interpretation and Rediction," edited by W.R. Piggott, British Antarctic Survey, c/o Appleton Laboratory, Slough, UK, October 1975, 294 pp, $4.00.

UAG-51 "Synoptic Maps of Solar Coronal Hole Boundaries Derived from He II 304A Spectroheliograms from the Manned Skylab Missions," by J.D. Bohlin and D.M. Rubenstein, U.S. Naval Research Laboratory, Washington, DC, November 1975, 30 pp, $0.54.

UAG-52 "Experimental Comprehensive Solar Flare Indices for Certain Flares, 1970-1974," by Helen W. Dodson and E. Ruth Hedeman, McMath-Hulbert Observatory, University of Michigan Pontiac, MI, November 1975, 27 pp, $0.60.

UAG-53 "Description and Catalog of Ionospheric F-Region Data, Jicamarca Radio Observatory (November 1966 - April 1969), by W.L. Clark and T.E. Van Zandt, NOAA Aeronomy Laboratory, Boulder, CO, and J.P. McClure, University of Texas as Dallas, Dallas, TX, April 1976, 10 pp, $0.33.

UAG-54 "Catalog of Ionosphere Vertical Soundings Data," prepared by NOAA Environmental Data Service, Boulder, CO, April 1976, 130 pp, $2.10.

UAG-55 "Equivalent Ionospheric Current Representations by a New Method, Illustrated for 8-9 November 1969 Magnetic Disturbances," by Y. Kamide, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, CO; H.W. Kroehl, Data Studies Division, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO; M. Kanamitsu, Advanced Study Program, National Center for Atmospheric Research, Boulder, CO; Joe Haskell Allen, Data Studies Division, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO; and S.-I Akasofu, Geophysical Institute, University of Alaska, Fairbanks, AK, April 1976, 91 pp, $1.60 (microfiche only).

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UAG-57 "Manual on Ionospheric Absorption Measurements," edited by K. Rawer, Institut fur Physikalische Weltraumforschung, Freiburg, GFR, June 1976, 302 pp, $4.27.

UAG-58 "ATS6 Radio Beacon Electron Content Measurements at Boulder, July 1974 - May 1975," by R.B. Fritz, NOAA Space Environment Laboratory, Boulder, CO, September 1976, 61 pp, $1.04.

UAG-59 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1974," by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Boulder, CO, December 1976, 144 pp, $2.16.

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